MEDICAL LIBRARY

OCT 31 1947

The JOURNAL
OF THE OKLAHOMA STATE MEDICAL ASSOCIATION

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Volume 40 OCTOBER, 1947 Number 10

HAVE YOU HEARD

H. A. Stalker, M.D., Pond Creek, won second place for veterans 70 years or older in the state trap shooting contest at Oklahoma City recently.

C. L. Border, M.D., Oklahoma City, who has been hospitalized at the V. A. Hospital, Will Rogers Field, for several months, has recovered and is now back in his offices in the Hightower Building.

Beginning August 15 *E. P. Allen, M.D.,* who recently retired from his Oklahoma City practice as a leading obstetrician, took over his duties as Chief of Staff of the Oklahoma County Health Association, and has under his supervision the five medical clinics maintained at the Variety Club Health Center. This position is provided for in the Association's constitution, but has never been filled before.

W. Austerman, M.D., has begun the practice of medicine in Konawa with offices adjoining those of Dr. H. M. Reeder. Dr. Austerman received his M.D. from the Albany Medical College, Albany, New York, and served 23 months in the U. S. Army, with 14 months overseas attached to the 130th Station Hospital in Germany.

Ray H. Lindsey, M.D., was elected Commander of the Pauls Valley post of the American Legion recently.

Vernon C. Merrifield, M.D., has established offices in the Royalty Building, Ponca City. Dr. Merrifield just completed a year as house surgeon at St. Anthony Hospital, Oklahoma City. He is an OU graduate, class of 1945.

Playing star roles in weddings held recently in the state were the following: *E. S. Kilpatrick, M.D.,* of Elk City, married to Blanche Creswell, also of Elk City; *David E. Cantrell, Jr., M.D.,* to Mrs. J. H. Cameron, both of Healdton.

Jack C. Mileham, M.D., of Oklahoma City, has taken over the practice of *Dr. John W. (Jack) Adams,* at Chandler, Okla. Dr. Adams is leaving to become pathologist and specialist in internal medicine at the Erlanger Hospital, Chattanooga, Tenn. Dr. Mileham graduated from Oklahoma University Medical School in 1946.

J. A. Graham, M.D., formerly of Clinton, Iowa, has joined the medical staff of the Lindsey-Johnston Hospital-Clinic in Pauls Valley. Dr. Graham is a graduate of the University of Iowa, and served two years of internship and residency at the University Hospital in Oklahoma City before joining the U. S. Army Medical Corps. He served overseas with the 21st Evacuation Hospital, at which time he worked with Dr. Ray Lindsey.

MEDICAL SCHOOL

CALENDAR — SEPTEMBER, 1947

SURGICAL PATHOLOGIC CONFERENCES—Each Tuesday 12:00 Noon to 1:00 P. M.

MEDICAL CONFERENCES—Each Wednesday 9:00 A. M. to 10:00 A. M.

CLINICAL PATHOLOGIC CONFERENCES—Each Thursday 12:00 Noon to 1:00 P. M.

TUMOR CLINICS—First and Third Tuesdays (September 2 and 16) 8:00 A. M. to 9:00 A. M.

UROLOGIC-PATHOLOGIC CONFERENCE—Second Tuesday (September 9) 8:00 A. M. to 9:00 A. M.

MONTHLY STAFF MEETING — Second Friday (September 12) Dinner, 6:15 P. M.

RADIOLOGIC CONFERENCE — Fourth Monday (September 22) 6:45 to 7:30 P. M.

Houston Mount (Med '46) has completed his internship at the U. S. Naval Hospital, Bethesda, Maryland, and was appointed Resident in OB at the U. S. Naval Hospital, San Diego, California.

Dr. Thomas P. Anderson (Med '43) was granted a leave of absence as Medical Officer with the Trans-World Airways, Washington, D. C. He is leaving for Edinburgh about October 1, where he will attend the University of Edinburgh for a three-months' course in Physical Medicine.

Dr. James R. Winteringer (Med '45), *U. S. S. Marias,* Fleet P. O., San Francisco, California, was a visitor at the Medical School while on leave. He has ended a tour of sea duty and is awaiting further assignment.

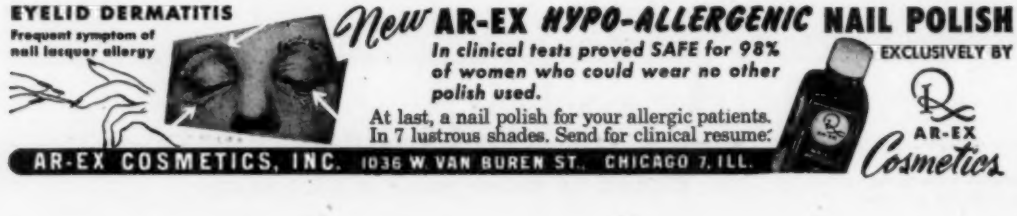
Ross Miller (Med '46) and Glen L. Berkenbile (Med '46) were recent visitors at the Medical School before reporting for duty in the Army.

A baby formula laboratory service for the purpose of preparing baby formulas, under prescriptions by family doctors, is being incorporated here by Dr. J. L. Gregston, naval medical officer here, and his associates, he announced recently.

Articles of incorporation are now being drafted for the "Formula Laboratories, Inc.," an Oklahoma corporation, with Dr. Gregston, his brother J. W. Gregston of Marlow, and M. G. Manor, of Oklahoma City, as incorporators, he said.

"We plan to prepare the baby formulas according to the prescription of the family doctor, deliver the formula to the mother, and handle the preparation and delivery on a weekly payment basis," Dr. Gregston said.

The doctor said he and his associates hope to have the laboratory ready to start operations September 1.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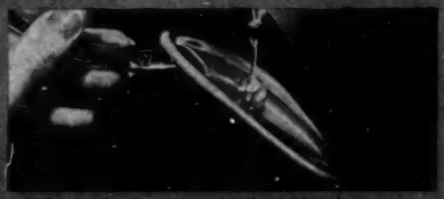
NO. 2 Diaphragm placed on introducer.



NO. 3 Application of jelly to diaphragm.

NO. 4 Beginning insertion of diaphragm.

NO. 5 Placement of diaphragm.

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OFFICERS OF COUNTY SOCIETIES, 1947

COUNTY	PRESIDENT	SECRETARY	MEETING TIME
Alfalfa	L. R. Kirby, Cherokee	L. T. Lancaster, Cherokee	Last Tues. each Second Month
Atoka-Bryan-Coal-Johnston	J. S. Fulton, Atoka	A. T. Baker, Durant	
Beckham	O. C. Standifer, Elk City	J. E. Levick, Elk City	Second Tuesday
Blaine	Fred Perry, Okeene	Virginia Curtin, Watonga	Third Thursday
Caddo	George W. Conover, Jr., Anadarko	Edward T. Cook, Jr., Anadarko	Third Thursday
Canadian	G. L. Goodman, Yukon	Jack W. Myers, El Reno	Subject to Call
Carter	J. M. Gordon, Ardmore	C. D. Cunningham, Ardmore	Second Tuesday
Cherokee	P. H. Medearis, Tahlequah	R. K. McIntosh, Jr., Tahlequah	First Tuesday
Choctaw-McCurtain-Pushmataha	Reed Wolfe, Hugo	Fred D. Switzer, Hugo	
Cleveland	Orville Woodson, Norman	T. A. Ragan, Norman	Thursday nights
Comanche	Leslie T. Hamm, Lawton	Byron W. Aycock, Lawton	Third Tuesday
Cotton	G. W. Baker, Walters	Mollie Scism, Walters	Third Friday
Craig	P. L. Hayes, Vinita	J. M. McMillan, Vinita	
Creek	O. H. Cowart, Bristow	F. H. Sisler, Jr., Bristow	Second Tuesday
Custer	Willard H. Smith, Clinton	D. W. McCauley, Clinton	Third Thursday
Garfield	Francis M. Duffy, Enid	John R. Walker, Enid	Fourth Thursday
Garvin	Thomas F. Gross, Lindsay	John R. Callaway, Pauls Valley	Wed. before 3rd Thur.
Grady	R. R. Coates, Chickasha	Wesley W. Davis, Chickasha	Third Thursday
Grant	I. V. Hardy, Medford	F. P. Robinson, Pond Creek	
Greer	Dwight D. Pierson, Mangum	J. B. Hollis, Mangum	
Harmon	W. G. Husband, Hollis	R. H. Lynch, Hollis	First Wednesday
Haskell	Wm. S. Carson, Keota	N. K. Williams, McCurtain	
Hughes	Clyde Kernek, Holdenville	H. V. Schaff, Holdenville	First Friday
Jackson	E. W. Mabry, Altus	J. P. Irby, Altus	Last Monday
Jefferson	J. A. Dillard, Waurika	O. J. Hagg, Waurika	Second Monday
Kay-Noble	E. C. Mohler, Ponca City	Edwin Yeary, Ponca City	Second Thursday
Kingfisher	John R. Taylor, Kingfisher	H. Violet Sturgeon, Hennessey	
Kiowa	J. Wm. Finch, Hobart	R. F. Shriner, Jr., Hobart	
LeFlore	John H. Harvey, Heavener	Rush L. Wright, Poteau	
Lincoln	J. S. Rollins, Prague	Ned Burleson, Prague	First Wednesday
Logan	James Petty, Guthrie	J. E. Souter, Guthrie	Last Tuesday
Mayes	E. H. Werling, Pryor	Paul B. Cameron, Pryor	
McClain	I. N. Kolb, Blanchard	W. C. McCurdy, Jr., Purcell	
McIntosh	F. R. First, Sr., Checotah	W. A. Tolleson, Eufaula	Third Thursday
Muskogee-Sequoyah-Wagoner	W. P. Fite, Muskogee	William N. Weaver, Muskogee	First Tuesday
Northwestern	Myron England, Woodward	C. W. Tedrowe, Woodward	2nd Thurs. Even Mo.
Okfuskee	L. J. Spickard, Okemah	M. L. Whitney, Okemah	
Oklahoma	F. Redding Hood, Oklahoma City Mrs. Muriel Waller, Exec. Secty.	George E. Kimball, Oklahoma City	Fourth Tuesday
Okmulgee	John Cotteral, Henryetta	C. E. Smith, Henryetta	Fourth Tuesday
Osage	R. O. Smith, Hominy	Gayfree Ellison, Pawhuska	Second Monday
Ottawa	B. Wright Shelton, Miami	W. Jackson Sayles, Miami	Third Monday
Payne-Pawnee	C. H. Haddox, Pawnee	C. W. Moore, Stillwater	Second Thursday
Pittsburg	Homer C. Wheeler, McAlester	Edward D. Greenberger, McAlester	Third Friday
Pontotoc-Murray	E. D. Padberg, Ada	Ollie McBride, Ada	First Wednesday
Pottawatomie	Charles F. Paramore, Shawnee	Clinton Gallaher, Shawnee	1st and 3rd Saturday
Rogers	W. A. Howard, Chelsea	P. S. Anderson, Claremore	
Seminole	Claude B. Knight, Wewoka	Mack I. Shanholtz, Wewoka	
Stephens	E. H. Lindley, Duncan	E. C. Lindley, Duncan	Third Wednesday
Texas	Daniel S. Lee, Guymon	E. L. Buford, Guymon	Third Wednesday
Tillman	G. A. Tallant, Frederick	O. G. Bacon, Frederick	
Tulsa	E. O. Johnson, Tulsa Mr. Jack Spears, Exec. Secty.	John E. McDonald, Tulsa	Second and Fourth Monday
Washington Nowata	Thomas Wells, Bartlesville	L. B. Word, Bartlesville	
Washita	A. H. Bungardt, Cordell	Aubrey E. Stowers, Sentinel	Second Wednesday
Woods	C. A. Traverse, Alva	O. E. Templin, Alva	Last Tuesday Odd Months

COUNCILORS AND VICE-COUNCILORS

(Figure indicate year terms expire.)

District No. 1: Alfalfa, Beaver, Cimarron, Dewey, Ellis, Harper, Texas, Woods, Woodward—O. E. Templin, M.D., Alva (C) 1950; O. C. Newman, M.D., Shattuck (V-C) 1950.

District No. 2: Beckham, Custer, Greer, Harmon, Jackson, Kiowa, Roger Mills, Tillman, Washita—L. G. Livingston, M.D., Cordell (C) 1948; O. C. Standifer, M.D., Elk City (V-C) 1950.

District No. 3: Garfield, Grant, Kay Noble, Pawnee, Payne—Bruce Hinson, M.D., Enid (C) 1950; R. W. Choice, M.D., Wakita (V-C) 1950.

District No. 4: Blaine, Canadian, Cleveland, Kingfisher, Logan, Oklahoma—Carroll Pounders, M.D., Oklahoma City (C) 1950; Joe Phelps, M.D., El Reno (V-C) 1950.

District No. 5: Cadda, Carter, Comanche, Cotton, Grady, Jefferson, Love, Stephens—J. L. Patterson, M.D., Duncan (C) 1948; J. Hobson Veazey, M.D., Ardmore (V-C) 1950.

District No. 6: Creek, Nowata, Osage, Rogers, Tulsa, Washington—Ralph McGill, M.D., Tulsa (C) 1949; Ralph Rucker, M.D., Bartlesville (V-C) 1950.

District No. 7: Garvin, Hughes, Lincoln, McClain, Murray, Okfuskee, Pontotoc, Pottawatomie, Seminole—Clinton Gallaher, M.D., Shawnee (C) 1950; Ned Burleson, M.D., Prague (V-C) 1950.

District No. 8: Adair, Cherokee, Craig, Deleware, Mayes, Muskogee, Okmulgee, Ottawa, Sequoyah, Wagoner—J. G. Edwards, M.D., Okmulgee (C) 1948; W. J. Sayles, M.D., (V-C) 1950.

District No. 9: Haskell, Latimer, LeFlore, McIntosh, Pittsburg—Earl Woodson, M.D., Poteau (C) 1948; E. H. Shuller, M.D., McAlester (V-C) 1950.

District No. 10: Atoka, Bryan, Choctaw, Coal, Johnston, Marshall, McCurtain, Pushmataha—W. K. Haynie, M.D., Durant (C) 1950; W. W. Cotton, M.D., Atoka (V-C) 1950.

THE JOURNAL
of the
OKLAHOMA STATE MEDICAL ASSOCIATION

EDITORIALS

FETAL AND NEONATAL MORTALITY

In the August, 1947, number of the American Journal of Obstetrics and Gynecology, Labate[1] discussed this subject in the light of 868 autopsies. He shows that in the past decade reduction in fetal and neonatal mortality has not kept pace with reduction in the maternal rate. The physicians who bring Oklahoma babies into the world should read this interesting article and gird their loins for better obstetrical service.

The author lists the four major causes of fetal and neonatal deaths as follows: "(1) Prematurity; (2) pulmonary lesions; (3) birth trauma; and (4) maceration, following antepartum or intrapartum fetal deaths, often of unknown cause."

Quoting from a table showing all causes in relation to their relative importance, we find the following: "Prematurity, 27.6 per cent; lung lesions, 22.5 per cent; birth trauma, 16.9 per cent; maceration, 16.5 per cent; congenital anomalies, 7.4 per cent; syphilis, 4.5 per cent; erythroblastosis, 1.7 per cent; sepsis, 1.4 per cent; cause unknown, 0.8 per cent; miscellaneous causes, 0.4 per cent."

It is interesting to note that after prematurity, various types of lung lesions produce the largest number of deaths and that 60.2 per cent of these are due to aspiration of amniotic fluid. Pneumonia claims 27 per cent, hemorrhage 10.2 per cent, hyaline membrance two per cent, and cystic lung 0.6 per cent. Birth trauma and the complications of pregnancy also receive graphic listings with "intracranial lesions," 76.8 per cent leading the trauma group and "no material cause" making up 52.2 per cent of the complications of the pregnancy group.

The author refers to two other similar reports in recent years, each dealing with approximately 1,000 autopsied cases. He stresses the similarity in the findings but admits seeming discrepancies arising through the employment of different terms with virtually identical meaning, expressed by the pathologist in one and the clinician in the other. Thus the pathologist's term, "aspiration of amniotic fluid," corresponds to the clinician's, "asphyxial state."

No doubt some of these fetal and neonatal causes of death are insurmountable but the physicians of Oklahoma should strive to give every child and every mother the best possible chance. Only by discharging our duty to them can we hope to improve our position in the nation's statistical columns.

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1. Labate, John S., B.S., M.D., A Study of the Causes of Fetal and Neonatal Mortality on the Obstetric Service of Bellevue Hospital, American Journal of Obstetrics and Gynecology, 54:188, (August) 1947.

THE SEVENTEENTH FALL CONFERENCE

Though still in its teens, the Oklahoma City Clinical Society is mature in its educational performances. On October 27, 28, 29, and 30, the usual diversified scientific program will be under way.

A large number of guest speakers from widely separated medical centers will send the latest scientific advances through loud speakers to every corner of the packed Biltmore Civic Room.

For the benefit of those seeking well-rounded discussions on special subjects, there will be conveniently timed postgraduate symposia.

The Medical and Surgical round table luncheons will enable the quizzically minded to put the boys from the medical centers on the spot. This is the time to "stump the experts."

The annual Chamber of Commerce Clinical Dinner represents a unique blending of civic and medical interests. This is where the home folks greet all guests and their families with open arms.

The President's Dinner given by the Oklahoma County Medical Society in honor of the President of the American Medical Association is always a stimulating and pleasurable occasion.

The annual Smoker is a "stag party" with exciting stage possibilities. Regardless of the participant's age, it is fun. This conference offers unexcelled postgraduate possibilities.

THE COOPERATIVES

In the August 23 *Saturday Review of Literature* there is an extensive review of Bertram B. Fowler's book *The Cooperative Challenge*. Admitting that Mr. Fowler has made an exhaustive study of the cooperative movement throughout the world and that he may be able to speak to businessmen on this subject with authority, but judging from what he so glibly strikes off about the cooperative movement in medicine, businessmen should take what he says with a grain of salt.

The readers of the Journal will be interested in the following paragraph from Fred Smith's review:

"Cooperatives have made important inroads in medicine, against the best-laid plans and almost irresistible powerhouse punches of the AMA. It started when an unknown doctor in a Western village talked his patients into putting up money for a cooperative hospital. The plan was simple: You pay $50 for a life membership and $25 a year. You and your friends own the hospital, pay the salaries of the staff, and use the facilities as much as you please. In case of a major operation, you pay a few extra charges, but the total bill comes to around $50 instead of $300 or so. This first hospital succeeded rapidly, acquired a large and competent staff, and served both members and non-members for miles around. A man in Texas heard about it and one was started in that state. Then the cat was out of the bag and cooperative hospitals were launched in scores of places. The AMA, fearing socialized medicine, did everything possible, up to and including an attempt to revoke the license of the physician who started it all; but they lost. They tried to pass a bill through the Texas legislature to outlaw cooperative hospitals. They lost again. Strangely enough, however, they did succeed in limiting cooperative hospitals to towns under 2,500 population — a stipulation that dosen't prevent the construction of a cooperative hospital outside a large city, for the benefit of the large city. It was face-saving victory."

Mr. Fowler should know that if it were not for the "almost irresistible powerhouse punches" of the A. M. A. in its cooperation, collectively, with nature and science against disease and the personal cooperation of its individual members with their patients, rich or poor, with the people sound or unsound, and with the public health agencies, he might not be here to fight with so much vigor for cooperative inroads in medicine. Likewise he should know that the more rapid the inroads on medicine as a private enterprise, the less the chances for his grandchildren to achieve health, happiness, and a reasonable longevity.

WHEN THE ART BECOMES A SCIENCE

Many a struggling soul has gone on the rocks while awaiting the body's return to dust.

When on account of incurable disease the physician finds that he is unable to save the body, he should succor the soul. He can tell responsible members of the family the whole truth while artfully protecting the patient. As a rule, time gradually brings a consciousness of the otherwise cold facts, and prepares the way for an inevitable fate. Often slowly dawning knowledge gathers fortitude and this in turn brings resignation. In this

way both patient and physician may be spared acute psychological pain.

Recently an anxious patient was referred to a great surgeon. A difficult exploratory operation revealed an incurable condition. Postoperative shock threatened immediate disaster, but skilled management saved the patient's life. She had bravely submitted to surgery and now courageously she looked to the surgeon for further help and guidance. Rather than tell her the whole truth, he reached an understanding with her family, and decided to sustain her with guarded hope which she might cherish until time eased the dawning consciousness of failure. Certainly there is growth of character in the struggle and this helps to negotiate that last incomprehensible act in the cycle of life.

In his funeral speech before mothers who had lost sons in the Peloponnesian War, Pericles was fostering reconciliation when he said, "They may be thought fortunate who have gained most honor, whether an honorable death like your sons, or an honorable sorrow like yours." This surgeon was following a similar course when he accorded credit for unusual courage and good behavior. The patient was managed so skillfully that when she was returned to her own physician she and her loved ones were high in their praise of the specialist who, though failing to cure through the application of his scientific skills, made a science of the art and brought a certain degree of success out of failure. Even the family physician was blessed for having referred them to such a fine doctor. In addition to the applied art in the normal, professional contacts, there are certain gracious approaches which fall outside the considered line of duty and which have a potent inspirational and moral influence.

This patient received flowers and strawberries from her surgeon with cards which meant more than the gifts, "picked from my own garden specially for you." Suffering and sustained courage, and even dying are made easier by thoughts and things "specially for you."

Henry Sewell once said, "How soothing when the time for all mechanistic aid has passed is the intelligent sympathy of the family doctor!"

Without sincerity and humility the art of medicine becomes a despicable artifice and should not be tolerated by patient or profession.

COUNTY MEDICALS PLEASE TAKE NOTICE

This significant statement from the President's page in the September issue of the Bulletin of the Tulsa County Medical Society, signed by E. O. Johnson, is being reproduced with the hope that it may be brought to the attention of every member of the State Association. It speaks for itself and needs no editorial support.

"The Oklahoma State Medical Association has been doing some excellent work in the past two or three years in strengthening relationships between medicine and its allied professions, dentistry and pharmacy. This is a splendid program which our Tulsa County Medical Society highly endorses, and one which every county medical society in Oklahoma should initiate individually as well. Much is to be gained by a closer harmony between these professions, and the cooperative effort in attaining mutual goals will pay handsome dividends. As doctors, we have perhaps been guilty in past years in considering the members of the dental and pharmacy professions as mere competent mechanics. The rounded training now received in American dental schools no longer justifies this type of thinking. The dentist of today has a full knowledge of the pathological and the histological, and an increasing ability to recognize conditions associated with each. Similarly, our pharmacists by their educational requirements and increasing standards of professional conduct are attaining new stature. Finally, we must not overlook the fact that criticism of pharmacy and dentistry as being mechanical arts is one equally applicable to medicine. Surgery is largely mechanics with a large appreciation of tissues and their responses, for instance.

"All three of these professions contribute much individually, and their independence necessitates the closest degree of cooperation. I believe that we have much to gain by a cooperative program with dentistry and pharmacy. . . . The potentialities are great."

GRACIAN ON GREAT MEN

"Great men are a part of their times. Not all were born into a period worthy of them, and many so born failed to benefit by it! some merited a better century, for all that is good does not always triumph: fashions have their periods and even the greatest virtues, their styles: but the philosopher has one advantage, he is ageless; and should this not prove his century, many to follow, will."—Gracian.

SCIENTIFIC ARTICLES

CURRENT PROBLEMS IN PUBLIC HEALTH*

JOHN F. HACKLER, M.D., M.P.H.
Professor, Preventive Medicine and Public Health
University of Oklahoma School of Medicine
OKLAHOMA CITY, OKLAHOMA

In considering the many problems of the day with relationships to the health and wellbeing of the public, one is tempted to generalize rather than specifically point to activities and programs which, through concerted and united effort, analysis, and in some cases research, offer some hope of alleviation in the near future.

Of world interest is the formation of the World Health Organization, the constitution of which is currently being considered for adoption by the various nations. This sets forth the philosophy of international health relations that it is in the interest of the more advanced nations in health matters to assist less fortunate nations. To this organization are transferred the health functions of UNRRA and the League of Nations.

On the national scene, two important current developments are:

(1) The National Mental Health Act which provides for research and other facilities for development of a preventive attack on mental illnesses which affect about 8,000,000 Americans and fill over one-half the country's existing hospital beds. This will enable states to organize a preventive attack and to coordinate such a program as may be developed with the curative program, particularly as regards follow-up supervision of patients released from hospitals. Consultant service, mental health clinics for adults, and child guidance clinics can be started in strategic locations, and perhaps periodic services can be furnished in some more isolated areas as has been done in Oklahoma under the crippled children's program and the cancer program.

(2) The Hospital Survey and Construction Act establishes a national policy for planning, location and construction, and operation of hospitals and health centers in relation to the needs of the people within a state or community.

Both these programs will be administered by the USPHS through grants-in-aid to the state agency designated by each state, on the basis of population, need, and financial ability of the state to meet the needs. In Oklahoma, the State Department of Public Health is the designated agency. This agency has enjoyed the full support of the medical profession of the state and together they have maintained our Sooner spirit and tradition by being among the first states to complete the necessary legislation to permit participation in the federal hospital program and to complete the statewide survey of existing hospital facilities and needs. You no doubt recall that the Oklahoma Rheumatic Fever Program was the first to receive federal approval.

Our long range state plan for hospital construction will be submitted for approval in the near future, and it is anticipated that individual projects will be ready for approval and the start of construction soon after July 1, 1947, when it is now anticipated the first federal funds will be available for allocation. Oklahoma's allotment is now established at $1,640,000 per year for five years. Determination of allotments to states and in turn to individual projects is based on relative needs and undoubtedly those 20 counties now without suitable hospital facilities will receive first consideration if they are interested and can provide their two-thirds of construction cost together with a suitable plan for operation and maintenance. Local participation can be by the state, county, city, or by any non-profit organization or association. General hospitals receive first consideration. Tu-

*Presented at the General Session of the Oklahoma State Medical Association at the Annual Meeting, May 14, 1947.

berculosis, mental, and chronic disease hospitals are also eligible, as well as health centers.

I should like to make a special plea to those of you from areas anticipating construction of city, county, or city-county hospitals. For only a slight additional over all cost to the community, health center facilities can be included. Joint x-ray and laboratory facilities, libraries or reading and staff conference rooms, and perhaps even reception or waiting rooms can be utilized. In fact, it is not inconceivable that a good physician trained in medical administration might serve both the hospital and health department in many areas. As full-time health service is extended to new areas, facilities will be necessary. Community planning must include these if the total health needs are to be met.

One of the important recommendations of the American Medical Association in its 10-point National Health Program is that full-time health service be extended to the entire population. This is perhaps one of the most important current problems in Public Health. Reasonably adequate coverage can be given with 1200 local departments.[2] At present less than one-half of the 3,070 counties in the United States, representing one-third of the population or 40,000,000 people, have local organized health services available. Many of those areas organized are without health officers and are short in nursing staff at present. The shortage of professional health personnel, like that of teachers, is closely related to adequacy of compensation and present living costs.

More specifically, in Oklahoma 29 departments cover 38 of the 77 counties and the two larger cities with full-time health service — 68 per cent of the population. Many other counties have expressed their desire for such service as soon as personnel become available. Plans have been suggested for statewide coverage with 32 units, with an average population of 73,000 per unit. By combining city, county, and school health services, or two or more counties under one department where the population does not justify a single department, much duplication of some of the more expensive administrative staff can be eliminated. Such a plan would call for about 50 full-time physicians and utilize the services of about 138 part-time clinicians. This long range program for Oklahoma would also require about 475 nurses and 60 sanitary officers in addition to the necessary clerical personnel. The estimated cost of such a program is about $1.00 per capita per year. A broadened program of health education must be maintained until local areas are willing to support a program to that extent. Additional funds from state and federal sources can supplement the state program and assist local areas on the basis of special health problems and financial ability.

Physicians interested in the public health can no longer delay thoughtful study and planning in relation to provision of medical care. Beginnings have been made by medical society sponsorship working jointly with the official health agencies in Tulsa, in Muskogee and Seminole counties, and perhaps other areas here in Oklahoma. Several state programs have been developed such as the Maryland Medical Care Program. Still other plans have been inaugurated in cities like Baltimore, New York, Richmond, and Topeka. In Topeka, Kansas,[2] the health department provides space, laboratory, nursing and clerical service. Professional services are provided through the County Medical Society. The plan includes both home visits and a regular out-patient clinic and includes those families certified as medically indigent by the Public Welfare Agency. Payments are made on an insurance basis from county funds appropriated through the Welfare Department. Physicians cooperating are paid on the basis of a unit fee schedule established by the Medical Service Board of the County Medical Society.

Health agencies have been reluctant to extend their sphere of activity from sanitation and preventive medical services to the broader field of medical care. Yet they must accept such responsibility for they are in most instances the designated governmental agencies for matters related to medical problems. While cooperation with welfare agencies is necessary, health departments furnish the medical perspective or physician's viewpoint necessary to any program of medical administration. Health officers receive training and experience in administration. Even more training in hospital and medical administration might be desirable for those who are to assume direction of an indigent medical care program. To get that type of person, salaries, opportunities for advancement, tenure, and retirement plans must be commensurate with the responsibility assumed. Salaries must equal at least the average net income from private practice if competent persons are to be attracted.

The field of geriatrics is becoming more and more important each year as our population is aging. According to U. S. census figures, and reliable estimates for the future,[3] the percentage of persons over 45 years of age in the U. S. has increased from one-fifth of the total population in 1920 to over one-fourth in 1940. By 1960, one-third of our population will be over 45 years of age, and one person in ten will be 65 years of age, or over. If one cares to continue the estimate to 1980 when it is expected that the present increase in population will cease at about 150 million, we shall have 60 million persons 45 years and over and more than 21 million 65 years and over.[4]

What effect will this have on chronic diseases and disabilities associated with advancing age, to say nothing of changes in employment, economics, retirement, etc.? In 1900 the first and second of the leading causes of death were tuberculosis and pneumonia and these two diseases accounted for one-fifth of all deaths. Now they rank sixth and seventh. At present, of the first five causes in order of magnitude, four — heart disease, cancer, cerebral hemorrhage, and nephritis — are diseases more frequent in middle life and old age. The fifth — accidents — can happen any time. Diabetes and arteriosclerosis, the eighth and tenth leading causes, are also typical in later life. These six causes accounted for over three out of every five deaths in 1944. In fact, over one-half of the deaths from tuberculosis and pneumonia occurred at or after age 45.[3]

Both the medical profession and the lay-public are to be congratulated upon their current and rapidly increasing interest in research and the control of cancer. Three weeks ago, Dr. Ochsner of New Orleans, in an address at the meeting of the Southern Branch of the American Public Health Association at Memphis, stated that cancer must be treated before diagnosis is possible. By doing that, cancer control is a reality. When a clinical diagnosis is made, only five per cent of cases live five years or longer. This is particularly true of the "Doctor's Cancer," as Dr. Ochsner calls cancer of the stomach, for it is slightly more prevalent among physicians than other groups. He further stated that any man past 40 years of age with a lesion of the stomach must be treated as if it were cancer, that every gastric ulcer is potential cancer and should be seen by a surgeon, and that removal while "benign" is conservative.

Dr. Ochsner further told of experiences at Tulane University Medical School with the well-person cancer detection clinic which has been in operation for the past two years. One and one-half per cent of the persons seen have been found to have cancer — early and curable. Fifteen per cent had precancerous lesions such as polyps, nevi, scars, etc. This is cancer prevention. Just as interesting also, he reported that 25 per cent of these "well persons" were suffering from other conditions such as tuberculosis, diabetes, etc.

In another study, Dr. George T. Pack[5] has reported on a series of 1,000 cancer cases with regard to the delay in securing a diagnosis and instituting appropriate treatment. The patient alone was responsible for delay in 44 per cent of the cases; the physicians alone, in 17 per cent, while both patient and physician were at fault in 18 per cent. In only 21 per cent was there no serious delay on the part of either. Well-person cancer clinics, together with a sustained educational program for both physicians and the public are indicated. In addition to expanding clinics and education, hospital facilities, pathological service, and statistical research are essential, and these factors constitute what Dr. Lombard[6] calls the "basic plan for future cancer control."

What about diabetes? From 1900 to 1940 this disease climbed in rank as a cause of death from twenty-fifth to ninth place.[7] The National Health Survey (1935-1936) figures reveal that there are 660,000 known diabetics in the United States. Joslin, et al, estimate over one million. According to prevalence rates of the survey, three-fourths of these are 50 years of age or over. We know much about the cause, diagnosis, treatment, and complications of diabetes. Early diagnosis is very important. Yet only $30,000 per year, or five cents per case, is donated for study and control of this disease each year as compared to $15 million ($22.00 per case) for tuberculosis and a like amount for cancer. An educational program is needed in this field. A demonstration program now in progress in Oxford, Massachusetts, under the auspices of the U.S.P.H.S., will perhaps give us a practical plan for integration of diabetes control into a local generalized health department program.

SUMMARY

What are the major current problems in public health?

1. Extension of full-time local health service to the entire population.
2. Improved hospital facilities, particularly in rural areas, to better serve the public and to attract physicians to these areas.
3. A mental health program with emphasis on preventive aspects.
4. Greater interest in research and application of present knowledge in the field of geriatrics with particular emphasis on those diseases now causing the major portion of deaths — cancer, diabetes, and diseases of the heart, arteries and kidneys.
5. Further study, cooperative planning, and experimentation in methods of providing indigent medical care.

I cannot close without adding a few words about the importance of a broad sustained program of health education covering factors necessary both to personal and to community health — nutrition, maternal and child care, communicable disease control, preventive medical services, and environmental sanitation. While our legislature has recently provided for the beginning of a program of health and physical education in our schools, it is up to the medical and public health professions to extend this service to the older age groups who after all pay the bills and suffer the effects of disabling and preventable illness and premature death.

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THE USE OF CURARE IN ANESTHESIA*

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Curare has been a pharmacological curiosity for a great many years. About the middle of the last century some attempts were made to find a practical use for the drug but because of the variable potency of different lots and inability to isolate the active principle, these attempts ended in failure. It was not until 1935 that King was able to isolate the active principle to which the name d-Tubocurarine chloride was given. A standardized and purified preparation was put on the market under the name Intocostrin.

In 1942 the first reports of the use of curare in anesthesia appeared. The first of them was written by Griffith, the second by Cullen.

Therapeutic doses of curare paralyze the skeletal muscles, the point of action being the neuro-muscular end organs. The first muscles to be affected are those innervated by the cranial nerves, next the muscles of the trunk, the extremities, and finally the muscles of respiration. The diaphragm is the last to be affected.

Curare has no anesthetic or analgesic properties. It has been well demonstrated that in the presence of complete paralysis from curare, consciousness remains until clouded by the effects of oxygen want.

Since curare has no anesthetic properties, it must be used in conjunction with one of the general anesthetics. The patient may be maintained in a light plane of surgical anesthesia while adequate relaxation is obtained by the use of curare. This combination of drugs removes the need for the very deep levels of anesthesia required for certain surgical procedures. There is less tendency to shock, and the recovery period is both more rapid and pleasant. Surgical procedures within the abdomen are greatly facilitated by the complete relaxation which may be obtained.

The first clinical trials of curare (Intocostrin) were made with patients under cyclopropane anesthesia. Since that time the drug has been used in combination with nitrous oxide, sodium pentothal, and ether, alone and in various combinations.

Anesthesia is induced in the usual manner, and carried to the first or second plane of stage three. The curare is administered intravenously a few minutes before the need for muscular relaxation is anticipated. Some effect appears almost immediately, and the full degree of relaxation is obtained in about five minutes. If the initial dose of curare has been too small, as evidenced by inade-

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quate relaxation, additional amounts may be given at intervals of ten minutes until the desired effect is obtained.

The amount of curare required is dependent upon the size and age of the patient, and upon the type and depth of the anesthetic being used. Under cyclopropane anesthesia, adults of average size will require an additional injection of 50-60 units of curare. For aged, debilitated patients the dose should be reduced to 20-40 units. The size of subsequent injections is best determined by the response to the first one. The relaxation afforded by curare will last for a variable length of time, 35 minutes being the average, though in many cases it is not necessary to repeat the curare for nearly an hour.

An overdose of curare results in depression of respiration. This may vary from a slight decrease in breathing to complete apnea. The very mild depression may require no treatment; the moderate depression should be treated by augmenting the patient's respiratory efforts, and the more complete apneas are best treated by artificial respiration. As breathing becomes depressed, there is usually an increase in blood pressure, due to retention of carbondioxide. Rarely the blood pressure falls. Severe depression of breathing seldom lasts longer than 10 or 15 minutes, unless a very gross overdose of curare has been given.

The chemical antidote for curare is prostigmine, one cc. of the 1:2000 solution being given intravenously. This may be repeated if necessary. However, efficient artificial respiration with oxygen is generally considered to be the superior treatment.

When used in conjunction with ether anesthesia, the dose of curare is relatively small, as ether has a curare-like effect, and this combination of drugs is much more depressing to the respiration. Here the initial injection of curare is 20-25 units, and even then transient periods of apnea are not rare.

Rather large amounts of curare are required if nitrous oxide-oxygen anesthesia is used. The average young male adult will tolerate 80-100 units of curare as the initial injection.

Curare has been used in combination with sodium pentothal with satisfactory results. Since pentothal is a respiratory depressant the curare should be given cautiously, about 20 units at a time, until the desired degree of relaxation is obtained. The mixing of curare and pentothal solutions results in a heavy floculante precipitate. Therefore, the use of separate syringes is advocated, although there is some evidence to show that the precipitate quickly dissolves if injected into the blood stream, and produces no harmful effects. Baird has described the technic of mixing pentothal and limited amounts of d-Tubocurarine without the formation of the precipitate.

With any of the above combinations of curare with a general anesthetic, troublesome respiratory reflexes may be initiated if the degree of anesthesia is too light. The same is true, of course, when curare is not used. These reflexes are usually partial or complete spasms of the pharynx, the vocal cords, or the bronchioles. Increasing the depth of anesthesia will clear up the trouble quickly, and is a more logical and safe treatment than the injection of more curare. True, curare will frequently clear up such a spasm, but not always with entire safety. Difficulty has been reported in artificially ventilating patients completely paralyzed with curare, due probably to a persistent spasm of the bronchioles.

There are two definite contraindications to the use of curare preparations. These are (1) myesthenia gravis, and (2) inability or lack of facilities for adequately carrying on artificial respiration, should it be required. Any of the ordinary machines used to administer anesthesia will meet the second requirement, if properly used.

Curare has been satisfactorily employed in patients with the various types of heart disease. For such patients the drug should be given in smaller doses of not more than 20 units at a time, repeated as indicated. One should probably be satisfied with less relaxation than would be desirable in the more normal patient. It has been found that larger injections of curare frequently produce a drastic fall in blood pressure in cardiac patients. A few fatalities have been reported.

Following very prolonged operations during which large amounts of curare have been used, several hours may elapse before the patient completely regains muscle tonus. During this time, careful nursing care is required, especially with regard to the patency of the airway. Normally, however, the curare effect will have disappeared by the time the patient reacts from the anesthetic.

SUMMARY

The use of curare in conjunction with general anesthetics has been discussed, Excellent muscular relaxation is obtained, provided certain precautions are observed.

THE EARLY DIAGNOSIS AND TREATMENT OF PRIMARY PULMONARY TUBERCULOSIS IN CHILDREN*

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One of the chief characteristics which distinguishes pediatrics from other medical specialties is its emphasis on the prevention of disease. To a greater extent than in any other field of endeavor there is the opportunity and the obligation to safeguard the patient from the many dangers that beset his path. In the role of physician to the child one has the peculiar privilege of dealing with an individual not yet contaminated by the ways of the world. Since to prevent disease is a greater thing than to cure it, the real measure of our effectiveness as physicians lies in this protective function.

Among the many diseases from which the child should be protected few are so important as tuberculosis. In spite of the steadily decreasing incidence of the disease,[1] and the sanguine hopes that we may live to see it a rarity in America, there are still far too many cases and too many useless deaths. While to a great extent poor economic status and the defective health education of the people contribute to this needless morbidity and mortality, the medical profession, as a whole, is not making the concentrated attack on the disease the situation merits. Notable exceptions to this statement have occurred in localities where preventive medicine is at its best.[2] By and large, however, it is still not a general rule to survey every child for the presence or absence of this disease, so likely to be mild in the primary form, so prone to be devastating in the reinfection phase.

It is the purpose of this paper to present in a condensed form for the general practitioner a present day pediatric approach to primary pulmonary tuberculosis in children. The core of that approach is the routine survey of every child for the presence or absence of the disease, the detection of the tuberculous adult from whom the infection was derived, and the breaking of the contact between the child with the primary infection and the adult in the communicable phase. This approach is founded on the fact that the child with the primary infection who continues to be exposed to additional tubercle bacilli is more likely to break down with the reinfection form of the disease.

Unfortunately, from the standpoint of the early diagnosis of tuberculosis in children, the training of medical students and of physicians has long been directed largely toward the detection and treatment of clinically evident cases of tuberculosis in the adult population, with far too little consideration of the manner in which the disease manifests itself in the child. The student learns with painful thoroughness the classical symptoms of fatigability, fever, night sweats, weight loss, chest pain, cough, and hemoptysis, and he listens with attentive zeal for telltale apical rales, or the dramatic signs of advanced cavitation. He is accustomed to having the chest roentgenogram bear out his clinical impression and to find with reasonable facility the tubercle bacilli in the sputum. When he thinks of therapy it is in terms of hospital or sanitorium care, the possibilities of collapse therapy, and, more recently, what may or may not be expected of streptomycin. What is not so likely to have been impressed upon the student is that the picture of primary tuberculosis as it usually affects children is vastly different[3,4]; that children seldom have symptoms which arouse suspicion of the existence of tuberculosis; that physical examination, except insofar as it gives evidence of the general health of the child or evidence of far advanced tuberculosis, is practically useless in the diagnosis of the usual case; that ordinary chest

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roentgenograms are normal in the majority of children who have, or have had, primary tuberculosis; that a positive tuberculin test is almost essential for a correct diagnosis; that the tubercle bacillus in the child is usually found by examination and culture of the gastric washings; and that the chief treatment for primary tuberculosis is to insure an environment free from contact with cases of tuberculosis in the communicable stage.

THE TUBERCULIN TEST

Since in primary tuberculosis in children symptoms are so often lacking, physical findings so frequently normal, and chest roentgenograms negative in such a high percentage of cases, the chief screening agent to find out which children have, or have had, tuberculous infection is the tuberculin test. When an individual becomes infected with the tubercle bacillus there develops within a few weeks allergy to the protein fraction of the bacillus, the tuberculoprotein. This allergy or hypersensitivity can be detected by tuberculin skin tests, of which there are several varieties. The two types now generally used are the intradermal tuberculin test and the tuberculin patch test.

In performing an intradermal tuberculin test, there are two testing substances which may be employed. One substance is called old tuberculin, and the other is called purified protein derivative. The latter is somewhat more sensitive and is probably preferable, although there is no great difference in the results if both are used properly. If old tuberculin dilutions are used, an initial test with 0.1 cc. of a 1:1000 dilution is the common routine screening policy, unless one has reason to suspect tuberculous infection. If infection is suspected, it is wiser to start with a 1:10,000 dilution, in order to avoid severe reaction at the site of injection and elsewhere in the body. If the test is negative, and tuberculosis is still suspected, increasingly stronger dilutions are used until the test is positive or clearly shown to be negative. As a rule, if a 1:1000 intradermal test is negative in a child tested routinely for screening purposes it is not considered necessary to carry out additional tests with stronger dilutions.

Intradermal tuberculin testing with purified protein derivative may be done with 0.1 cc. of first strength purified protein derivative, or with second strength purified protein derivative. The latter solution is 250 times stronger than the first strength solution. This great strength of the second solution is a disadvantage from two standpoints: (1) It has been shown that 0.1 cc. of second strength purified protein derivative may be antigenic and thus produce a falsely positive test,[4,5] and (2) the solution is so strong that, if the patient is highly allergic, an undue reaction at the site of injection may be experienced, as well as reactions at sites of tuberculous infection elsewhere in the body, notably in the lungs. I have several times seen severe local reactions to second strength purified protein derivative when 0.1 cc. was injected intradermally after a negative or questionably positive first strength test. Because of these possibilities of antigenicity, or undue reaction, it is advisable to give only one half of the commonly used dose of second strength purified protein derivative, or 0.05 cc.

The Vollmer (Lederle) tuberculin patch test is a very convenient and reliable testing substance. The patch test, properly applied, detects about 90 per cent of children who have, or have had, tuberculous infection, and corresponds approximately with the 1:1000 intradermal test with old tuberculin. In my experience,[6] the patch test stands midway in sensitivity between the first and second strength purified protein derivative. For this reason, it is my own policy to begin testing with the patch test, bypassing the first strength purified protein entirely. If the patch test is negative, 0.05 cc. of second strength purified protein is used.

SIGNIFICANCE OF POSITIVE TUBERCULIN TEST

If proper precautions have been observed in not using a testing solution so strong that it is antigenic in itself, a positive tuberculin test simply means that at some time in the past life of the individual he has been infected with tubercle bacilli, and has, therefore, become allergic to tuberculoprotein. Despite attempts to correlate the severity of the local tuberculin reaction with the degree of activity of the tuberculous lesion in the body, no useful clinical method is available for this purpose. It cannot be said definitely that the more severe the tuberculin reaction the more active the disease process. However, since it may take a year or two for a primary tuberculous focus to heal with fibrosis or calcification, the younger the child with a positive tuberculin reaction the more likely it is that one is dealing with a still active lesion.

SIGNIFICANCE OF NEGATIVE TUBERCULIN TEST

In the great majority of cases, children

who have negative reactions to properly performed tuberculin tests have not had, and do not now have, tuberculous infections. It is highly important, however, to realize that there may be various factors at work which cause a child who is sensitive to tuberculoprotein to fail to react to the test. Some of these factors are: (1) improper technique of testing; (2) testing in the prodromal stage of the disease before allergy to tuberculoprotein has been achieved; (3) testing the moribund tuberculous child in the end stages of the disease when the body is flooded with antigen to such an extent that antibodies are all used up: (4) testing during or soon after any severe intercurrent illness which has lowered the reactive power of the body (anergy); and (5) testing older children who have conquered their early tuberculous lesions and have lost their sensitivity to tuberculoprotein.

Of the factors mentioned, one of the most common errors is improper testing technique. As examples of poor technique, one may cite loose application of the patch test so that contact with the skin is not tight; putting the patch test on the front of the chest where the child can pull if off rather than on the back of the chest; failure to use acetone or ether to defat the skin before application of the patch test; in intradermal testing, the use of a syringe in which the piston does not fit the barrel properly and allows some of the solution to back up in the syringe, thus causing failure to inject the proper amount into the skin; injecting a portion of the material under the skin of a struggling child rather than injecting the proper amount into the skin; and, finally, using testing material which is old and inert.

The second main error in tuberculin testing is inherent in the policy, prevalent in many children's hospitals, including our own, of applying a tuberculin test to all children on admission to the hospital. It is apparent that a great number of such children entering a hospital treating acute conditions will have such severe illnesses of one sort or another that they will fail to react to the tuberculin test. Doubtlessly, many children who would otherwise react positively are thus called negative reactors, and are therefore denied further supervision, including chest films and family follow-ups for tuberculous foci. Nevertheless, from a practical standpoint in a children's hospital treating large numbers of acutely ill children, the hospital stay of the child may be the only time the child is available for testing. When dealing with families of low educational level and intelligence, it is better to test during the hospital stay than not to test at all, as may occur if they fail to return the child to the clinic.

FOLLOW-UP OF POSITIVE TUBERCULIN TEST

A positive tuberculin test in a child is the crossroads of a clinical investigation which leads, on the one hand, to a search for the source of tuberculosis in the immediate environment, and, on the other hand, to a study of the child himself, with reference to location of the lesion, its extent, and the degree of activity. The fact that the child with the positive test seems normal makes no difference at all with regard to the carefulness of the follow-up. It is well known that primary tuberculosis may be present without clinical evidence other than a positive tuberculin test.

A. Family Follow-Up. In private practice, especially, but in clinic work as well, one should carefully prepare the parents for the follow-up before the test is actually applied. During the first year of life, when the usual immunizations are being carried out, it is an easy matter to tell the mother that a routine tuberculin patch test or intradermal test is indicated at the time of the Schick test, which usually comes between 12 and 18 months of age. At the time the test is to be applied, apprehension will be prevented by a few words to the effect that the test is simply a routine procedure, that tuberculosis is not suspected, but that if the test should turn out to be positive it will be necessary to obtain chest x-ray films of the child, and of all adult members of the family and servants, and to apply tuberculin tests to the other children. Also a statement that if the test is positive it does not necessarily indicate a severe infection will do much to allay worry. To tell the mother these things after the test is shown to be positive is much less effective. In private practice cases, it is extremely rare to encounter a mother who does not wish to have her child tested, or a family that does not cooperate in the follow-up. Where the mother has not been properly prepared for the meaning of a positive test and the follow-up indicated, one may find great apprehension and a reluctance to go through with the family survey.

One of the mistakes often made in surveying the family of the positive reactor is to take the easy way out by depending on a brief history and physical examination of adults in the household to tell whether tu-

berculosis is present or not. It seems superfluous to point out that a chest x-ray film is practically indispensable in the diagnosis of minimal or slightly advanced pulmonary lesions. The decision as to whether or not an adult in the family group has a tuberculous lesion is altogether too important from the standpoint of future safety of the positively reacting child to allow of anything but the most careful family survey.

The general practitioner has the best chance to obtain a careful follow-up. In his role of physician for the whole family, it is easy for him to obtain the necessary information about all members of the household. From the pediatrician's standpoint, one must work with the physician who treats the adult members of the family. If this physician is aware of the implications of a positive tuberculin test in the child and the necessity to insure an environment free from tuberculous individuals, cooperation in the matter of surveying the adults will be facilitated. If, on the other hand, he believes that much ado is being made about nothing, the opportunity to survey the family will be impeded. Because of a few experiences of this sort, it has been my policy to obtain chest roentgenograms on all adult members of the household before sending the adults to their own physicians for further study, if indicated.

Whatever the obstacles may be, no physician has discharged his moral obligation to the tuberculin-positive child until he has taken every step to assure an environment free from tuberculous foci, for it is frequently by continued association with a tuberculous individual that the serious reinfection form of the disease, with all its grave potentialities, ensues.

If, in the study of the family, an individual with tuberculosis in a communicable stage is detected, the indication to break the contact between the child and the adult is clear and impelling. In many cases, the contact can be broken easily, or has already been broken by recent death of the tuberculous adult. In the South, negro servants constitute a special problem, especially in view of the fact that normal chest x-ray films are not required for health certificates in most communities. In these days of easy access to roentgenography the physician should advise the family to have an x-ray film made of the servant's chest to rule out tuberculosis before employment. In our community this is easily obtainable, and the families are most cooperative. If the servant happens to be the one with the communicable lesion, her discharge from service and her subsequent treatment are arranged. The main problem in breaking contacts arises when the mother or father has the disease. Each case must be handled individually, and a further discussion of the steps to be taken is beyond the scope of this paper. However, it is apparent that nothing short of a complete break of contact between child and tuberculous adult is warranted.

B. Follow-Up of the Child. In the further study of the child with the positive tuberculin test one seeks evidence as to the location of the disease process, its extent, whether or not the process is clinically active, and especially whether or not the child is in a communicable stage of the disease.

A careful history, physical examination, and chest roentgenogram will usually be completely negative, for a positive tuberculin test in a child usually indicates a primary tuberculous lesion in the chest which is not now producing symptoms, abnormal physical findings, or x-ray evidence. The majority of all children who react positively to the tuberculin test have negative chest roentgenograms. This is so because the lesion may be very small, may be located back of the heart shadow, may be in the lower portions of the lungs and hidden by the liver shadow, may be obscured by the mediastinal shadows, or may be invisible on ordinary posterior-anterior films for some other reason.

Not all primary tuberculous involvements are mild. In a small but highly important percentage of cases more extensive involvement is present. Symptoms are usually indefinite, but in the clinically active cases may include fever, usually lowgrade, failure to gain weight, afternoon fatigue and irritability. Cough is an uncommon symptom. It is especially important to realize that expectoration, hemoptysis, and night sweats are practically nonexistent in primary tuberculosis in children. Marked weight loss is a great rarity. Abnormal physical findings are usually not present even when rather extensive parenchymal lesions are noted on the chest roentgenogram. However, in more advanced cases one may encounter decreased breath sounds, dullness to percussion, rales, and, at times, evidences of obstructive emphysema or of atelectasis, sometimes followed by bronchiectasis.[7]

A detailed description of the roentgenographic findings in primary tuberculosis of the lungs is beyond the scope of this presentation. Suffice to say, the evidence may range

from none at all to that of very extensive involvement, such as miliary tuberculosis. Even cavitation may be present in the progressive primary complex described by Auerbach.[8] The usual evidence consists of a parenchymal shadow and an associated enlargement of the neighboring tracheobronchial lymph nodes, with or without a thin streak of a shadow connecting the two and representing the pulmonary lymphangitis which is part of the primary complex of Ranke. As is well known, either the parenchymal of lymph node shadows may become calcified, or fibrosed. The chief difficulty in interpreting chest films arises when there is an apparently slight or moderate enlargement of the hilar shadows. In this connection, it is well to remember that most of the hilar shadow is caused by large pulmonary vessels, that there is considerable normal variation noted in hilar shadows, and that there are many pulmonary conditions other than tuberculosis which may produce enlargement of tracheobronchial lymph nodes.

There has been an increasing recognition of the fact that pulmonary calcifications are by no means tantamount to a diagnosis of tuberculosis. The work of Christie and Peterson[9 10 11] and of others indicates that a benign form of histoplasmosis may account for many of the pulmonary calcifications encountered in the central area of the United States, ranging from the western slope of the Allegheny Mountains to as far west as Kansas City. Coccidiodomycosis and other fungus infections of the lungs in other parts of the country may also produce pulmonary calcifications. This important work on histoplasmosis calls for a new orientation with regard to the interpretation of chest roentgenograms of children found to have pulmonary calcifications, with or without positive tuberculin tests. From a practical viewpoint, it is no longer possible to assume that a child who has a positive tuberculin test, and whose chest film shows evidence of calcification, necessarily has a calcified tuberculous lesion. The calcification may be due to healed histoplasmosis and the tuberculous involvement may be active and not visible, or may be responsible for only a portion of the calcifications, or may be in some other part of the body. Of more significance is the evidence that pulmonary calcifications in a child with a negative, properly performed tuberculin test are probably not due to tuberculosis. At the John Gaston Children's Hospital we have worked with Christie's histoplasmin testing material and have been impressed with the cases encountered in whom pulmonary calcifications were noted in the presence of a positive histoplasmin test and in the absence of a positive tuberculin test. The histoplasmin test is performed intradermally in the manner of the intradermal tuberculin test, with the reaction being read at 72 hours.

In addition to the history, physical examination, and chest roentgenogram, certain laboratory evidence may be used to determine whether the disease is active, or not, and whether the disease is in a communicable phase. An increased sedimentation rate is regarded as evidence of continued activity, provided other causes for an increase in the rate are excluded. An increase in the monocyte-lymphocyte ratio is also considered evidence of activity. The best criterion of activity is continued lowgrade fever. In this connection, one should remember that temperatures should be taken after the child has rested a half hour after any exertion. Sometimes children are alleged to have lowgrade fevers for months when, in reality, the temperature recordings are made so soon after exercise that they are normally elevated. This is more often the case with children suspected of having rheumatic fever or undulant fever, but the same is true to a less extent of children thought to have an active primary tuberculous infection.

From a practical point, it is important to know whether the tuberculin-positive child can spread his disease to others. The absence of any symptoms or abnormal physical findings, and the presence of a chest x-ray film which either shows no abnormalities or shows evidence of small healed lesions, point toward the child not being a source of infection to others. The presence or absence of a cough is a most important point to determine. If the child has a cough, and especially if he has a demonstrable lesion which appears not to have healed, search should be made for the tubercle bacilli in the gastric washings. If there is no cough, and if no lesion is demonstrable in the lung fields, there is much less indication to obtain gastric washings for study. For my own part, I do not advise lavage of the stomach and study for bacilli in children who react positively to the tuberculin test, but who have no cough and no demonstrable pulmonary lesion which gives x-ray evidence of activity.

The method of gastric lavage and examination of washings does not differ from that used for tuberculous adult patients. For three consecutive days before breakfast the stom-

ach is lavaged. The washings are concentrated. The usual acid-fast stain of a smear of the washings is made and search instituted microscopically for the bacilli. In addition, material is inoculated on any media suitable for growth of the organism. Injection of guinea pigs is performed in some cases, but reliance on cultures is gradually superseding the practice of animal inoculation.

If tubercle bacilli are recovered from the gastric washings, and particularly if the child also has a cough, he should be segregated from playmates until he is free of bacilli in the washings.

TREATMENT OF PRIMARY PULMONARY TUBERCULOSIS

The great majority of children found to react positively to the tuberculin test require no treatment other than to insure an environment free from tuberculous foci, yearly x-ray films of the chest to detect as early as possible any flare-up in the process, or appearance of a reinfection type of lesion, good nutrition, prevention of chronic fatigue, and avoidance of intercurrent infection. Yearly x-ray films of the chest do not usually show significant lesions prior to 10 or 12 years of age,[2] after which time reinfection lesions of the apices become more and more frequent. If yearly films cannot be obtained in early childhood, they should certainly be obtained beginning at 10 to 12 years of age. They have usually had their infection at some time in the past and have it well under control. A small percentage of positive reactors have active lung lesions when seen, and an even smaller but highly important group have severe pulmonary involvement. Patients requiring treatment for primary pulmonary tuberculosis may have extensive parenchymal infiltrative lesions; large lesions in the tracheobronchial lymph glands; a progressive primary focus of Auerbach with necrosis and cavitation; bronchial tuberculosis with obstructive emphysema, atelectasis, and even bronchiectasis; caseous bronchopneumonia; or miliary tuberculosis. Various combinations of the above lesions may occur.

The keynote to treatment is prolonged bedrest until all evidence of activity has ceased, as shown by return of temperature to normal, return of the white blood cell count to normal, return of the monocyte-lymphocyte ratio to normal, a normal sedimentation rate, gain in weight, feeling of increased well-being, absence of any symptoms such as cough, and evidence by serial chest roentgenograms that healing is taking place. In the more severe cases symptomatic therapy is indicated for dehydration, malnutrition, fever, cough, and, in rare cases, cyanosis.

A ray of hope in treatment is the use of streptomycin over long periods of time in relatively large doses, with the realization that failure is frequent when lesions are extensive[12] but that benefit may be obtained when the degree of involvement is less severe.[13] It is as yet too early to evaluate the use of streptomycin in primary pulmonary tuberculosis in children.

After clinical evidence of activity has disappeared, the health of the child should be so supervised that all factors thought to predispose to reactivation of the lesion will be prevented. Special attention should be directed toward the avoidance of malnutrition, fatigue, and intercurrent infections of various sorts. A well-nourished child, given adequate sleep and rest, whose hygiene is kept at as high a level as possible, and who is in an environment free from tuberculous contact has the best chance for continued recovery. The emotional aspects of the child's chronic illness should receive consideration, and all efforts should be made during the period of sickness and afterwards to prevent personality disturbances which are so often part and parcel of any long drawn-out illness.

In addition to the steps mentioned, chest x-ray examinations should be made every few months while the lesions are healing, and at least yearly thereafter. The period from prepuberty through puberty is an especially dangerous one, and yearly chest films may give first evidence of a reinfection type of tuberculosis in a child who until then had kept his disease well in check. The value of serial chest films in detecting early reinfection type lesions lies in the fact that treatment can then be instituted before clinical symptoms and signs are evident.

SUMMARY AND CONCLUSIONS

1. Tuberculosis is a preventable disease which has a declining incidence but still exacts a toll of far too many lives.

2. Primary pulmonary tuberculosis in children differs greatly in its clinical manifestations from the more widely understood reinfection type of tuberculosis in adults and older children.

3. Since clinical symptoms are often lacking, physical findings usually normal, and chest x-ray films frequently negative, the chief screening agent available to determine

which children have been infected and which have not is the tuberculin test. This test should be applied to all children, beginning at about 18 months to two years of age, and should be repeated every two or three years if negative.

4. Types of tuberculin tests recommended and the meanings of positive and negative tuberculin tests are discussed.

5. A positive tuberculin test in a child requires a follow-up in the family group to determine whether or not a tuberculous focus exists in a member of the family, and necessitates study of the child from the standpoint of location and extent of the lesion and degree of activity, with special reference as to whether the child can spread the disease to others.

6. For tuberculin-positive children without clinical evidence of the disease, or with x-ray evidence of healed lesions, treatment involves breaking any contact that exists between the child and tuberculous adult, supervision of the health of the child so as to avoid malnutrition, fatigue, and intercurrent infection, and yearly chest roentgenograms with a view toward picking up any reinfection type lesion at an early stage when treatment will be most effective. This is especially true in the prepuberty and puberty periods.

7. When clinical activity exists, treatment consists essentially of bedrest, proper nutrition, avoidance of tuberculous contact, symptomatic treatment as required by manifestations of the disease process, and, possibly in certain cases, the use of streptomycin. The role of streptomycin in primary pulmonary tuberculosis is not yet clarified, but the drug holds some promise for cases with less extensive lesions. After clinical activity has ceased, the same health supervision is given as has just been discussed for the tuberculin-positive child without clinical activity. Serial chest roentgenograms are of special significance in these cases.

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CONGENITAL HEART DISEASE*

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In the field of cardiology, where ordinarily our diagnostic accuracy is quite high, congenital heart disease has been in the past a rather conspicuous exception. There have been a number of reasons for this: First, the incidence of the disease is fairly low, so that in the normal course of practice, no individual would derive any extensive experience; second, there was a great profusion of lesions and apparently unpredictable combinations; third, there was no definite treatment and, therefore, the need for an exact diagnosis was not too apparent. Modern interest in congenital heart disease definitely stems from the work of Maude Abbott[1] who accumulated and analyzed a series of one thousand cases which came to necropsy. The present great interest in this subject is, of course, due to the application of surgical treatment to certain cases, principally by Gross[4] of Boston, and Blalock[2] of Baltimore. This paper will concern itself with the diagnosis of those cases of congenital heart disease which are amenable to surgical treatment. These conditions are: The Tetralogy of Fallot, Patent Ductus Arteriosus, Coarctation of the Aorta, Double Aortic Arch, and an Anomalous Right Subclavian.

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TETRALOGY OF FALLOT

The tetralogy consists of the following features: Pulmonary stenosis, or atresia,

patent interventricular septum, a dextraposed, or overriding aorta, and right ventricular hypertrophy. This is a rather common form of congenital heart disease occurring 110 times in Maude Abbott's series of 1000 cases. Eighty-five of these cases showed stenosis, while 25 showed atresia. The average age at death in her series was 12¾ years with a maximum attained age of 24 years. There are rare exceptions, however, to this maximum age. Paul White reported a rather famous American musician who died at the age of 59 years and nine months.

The most significant feature of the tetralogy is the pulmonary stenosis, inasmuch as this prevents an adequate amount of blood from passing through the pulmonary circulation. The tetralogy is the typical "blue baby" with cyanosis, often intense, clubbing of the fingers, and polycythemia. The oxygen capacity of the blood is high. The actual oxygen content and the per cent saturation are, of course, very low. The red count, hemoglobin, and hematocrit readings are all elevated, and at times quite markedly so. Clinically these patients are cyanotic, show clubbing of the fingers and toes, the heart is ordinarily not enlarged, but either systolic or diastolic murmurs, or both, may be heard. The x-ray appearance may be characteristic. It has been described at the coeur en sabot or the "wooden shoe" heart. This is due to the right ventricular hypertrophy which causes the heart to assume a horizontal position with a bifid apex, usually giving it a blunt appearance. The waist is narrow, the aortic knok prominent. The left oblique view, hypertrophy of the right ventricle may be noted. The lung fields show increased translucency due to the defective pulmonary circulation. The narrow waist is due to an absence or diminution of the pulmonary artery shadow. The pulmonary window as seen in the right oblique may be abnormally clear. The electrocardiogram as a rule is not very helpful. It tends to show evidence of right ventricular strain and may show an A-V block.

The surgical treatment of this condition was first reported by Blalock and Taussig[2] in 1945. At this time they reported three cases in which they had anastamosed the innominate artery to the pulmonary artery. This idea was suggested to them because of the fact that in complete pulmonary atresia the occurrence of death was governed largely by the time at which closure of the ductus arteriosus occurred.

The operative procedure is, of course, essentially the production of an artificial ductus. Since then they have found that the right subclavian artery is somewhat more satisfactory and at operation the end of the right subclavian artery is anastamosed to the side of the pulmonary artery.

Following operation the oxygen content of the blood rises at the same time that the oxygen capacity falls. There is a concomitant fall in red count, hemoglobin, and hematocrit. Shortly after operation there is usually slight evidence of enlargement of the heart to the left, as well as evidence of a definite increase in the pulmonary vascular markings. This enlargement of the heart to the left, however, is not progressive. Most of the patients after the operation are not cyanotic; their percentage of oxygen saturation usually rises to about 75 to 85 per cent. This compares with the normal of about 94 per cent. The changes in the laboratory findings are, of course, associated with corresponding improvement in the patient's subjective condition and in the ability of the individual to perform work.

PATENT DUCTUS ARTERIOSUS

Following birth the ductus arteriosus normally becomes obliterated at the age of approximately three weeks. Failure of this process to occur results in a persistent patent ductus arteriosus. Taken either alone or in association with other congenital cardiac defects, it was present in approximately 25 per cent of Maude Abbott's series. It is frequently associated with serious defects which cause early death. Its persistence in association with the tetralogy of Fallot is a favorable factor and has allowed some of these patients to reach a relatively advanced age. Its interruption here would, of course, be definitely contraindicated.

In its pure form it is a relatively innocuous lesion. The greatest danger is the occurrence of subacute bacterial endocarditis. There may also be retardation of growth and, in long-standing cases, left ventricular failure may ensue. These patients are not cyanotic and they are often picked up incidentally in a general physical examination.

The most characteristic physical finding is a loud, continuous, machinery-like murmur with systolic accentuation, frequently associated with a systolic thrill, and at times a diastolic thrill, heard best in the second interspace to the left of the sternum. The pulmonary second sound is accentuated. There is a tendency to have a normal or low

systolic blood pressure with a low diastolic pressure, giving a slight widening of the pulse pressure. In infants the murmur may be less characteristic or entirely absent.

Fluoroscopically one finds a prominence of the pulmonary conus, active pulsations of the aorta, the left ventricle, and the pulmonary artery with the so-called "hilar dance," and depending upon the age, left ventricular enlargement.

The surgical treatment was introduced in 1938 by Gross, of Boston, who first ligated the ductus arteriosus. However, with this procedure recanalization was fairly frequent, and at the present time he does a double ligation and severs the vessel between the ligatures. These patients become completely normal and the mortality has been very low.

Shapiro[5] has collected 643 cases which have been operated upon by 46 different surgeons, and found that the diagnosis was correct in 626. He found that the mortality rate in uninfected cases operated on by this group of 46 different surgeons was 4.9 per cent. He states, furthermore, that three surgeons, Gross, Wangensteen, and Crafoord, have performed the operation on 172 uninfected patients without a single mortality.

COARCTATION OF THE AORTA

Coarctation of the aorta is a stricture which arises at the site of the ductus arteriosus and is apparently an extension of the fibrosing and obliterating process which occurs normally in the ductus following birth. This is known as the adult type of coarctation and is the type with which we are concerned here. The infantile type is a more extensive atresia-like process which usually causes death at an early age and is not amenable to surgery.

This disease is not common, occurring about once in 3,000 or 4,000 autopsies. It is four or five times as common in males as in females. The average age at death is about 35 years; however, the extremes have been reported from six months to 92 years.

Causes of death are rupture of the aorta, intracranial hemorrhage, subacute bacterial endocarditis, and congestive heart failure. These four conditions constituted 74 per cent of the causes of death in a series collected by Reifenstein, Levine, and Gross.[6]

When subacute bacterial endocarditis occurs, it usually develops on bicuspid aortic cusps.

The occurrence of congestive failure is almost invariably associated with other cardiovascular abnormalities. These may be either congenital or acquired.

Intracranial hemorrhage is due to a subarachnoid hemorrhage from rupture of a congenital aneurysm ordinarily near the circle of Willis.

Other pathological findings at death are an almost constant left ventricular hypertrophy and bicuspid aortic valves in 23 to 40 per cent of all cases. This condition is probably the most easily and the most accurately diagnosable of all congenital heart abnormalities. A systolic murmur is always present. This is usually heard over the precordium, especially at the base. Frequently it is also heard in the back between the scapulae, or lower. The murmur is usually moderate to loud in intensity anteriorly, rarely it may be louder over the back than over the front. Because of the location of the aortic obstruction, one finds a hypertension in the upper extremities associated with a hypotension in the lower extremities. The femoral, dorsalis pedis, and posterior tibial pulsations are usually absent, and these should always be examined in cases of hypertension, especially hypertension in young individuals. An extensive collateral circulation springs up which, because it includes the intercostal arteries, gives rise to another very important diagnostic sign. This consists of a wavy erosion of the inferior surfaces of the ribs, which can easily be seen by x-ray. This is a very valuable confirmatory sign; however, it may be absent in children because the disease has not been of sufficiently long duration to produce the erosion.

Other significant roentgenological findings are dilation of the ascending aorta, absence or diminution in size of the aortic knob, left ventricular enlargement, and lack of a prominent descending aorta. The small or absent aortic knob may be a very suggestive point, inasmuch as one usually expects to find a prominent knob with hypertension.

In the surgical treatment of coarctation of the aorta, the aorta is clamped off, the constricted segment excised, and then the ends of the aorta are joined together in an end-to-end anastamosis. The clamp is then released gradually until the normal circulation is reestablished. This procedure is highly successful, carries with it a very low mortality, and results in a complete cure for the patient.

DOUBLE AORTIC ARCH

This syndrome consists of a vascular ring constricting the trachea and the esophagus

due to the failure of normal involution of the embryonic fourth right aortic arch. It was first described by von Siebold in 1837. It is characterized by cough, dyspnea, stridor, frequent upper respiratory infections, regurgitation of food, and loss of weight. Symptoms may be present from birth, but more characteristically appear after a few weeks. The most distinctive symptom appears to be an increase in the severity of the respiratory symptoms while the infant is feeding. This syndrome is probably the cause of the symptoms in some cases which, in the past, have been attributed to an enlarged thymus. There are no objective physical findings other than the symptoms just described.

Diagnosis is made by roentgenological examination.[7 8] With barium in the esophagus a constriction may be seen which envolves both diameters. Similarly, with either a plain film or with lipiodol in the trachea, a constriction of the trachea may be seen in both the lateral and anteroposterior diameters. Both aortic arches are functional. The abnormally persistent posterior arch is usually the smaller and surgical treatment is directed at its excision. Occasionally the normal anterior arch is small and the abnormal posterior arch large. In such cases the anterior arch is removed. Again the operative mortality is low and the results are excellent.

ANOMALOUS RIGHT SUBCLAVIAN

Occasionally the right subclavian artery arises as the last vessel from the normal left aortic arch, crosses the mid-line usually behind, but occasionally in front of the esophagus, and ascends obliquely upward and to the right. When its presence produces symptoms, these result from pressure on the esophagus with dysphagia, regurgitation of food, and so forth.

Here again, the diagnosis is made entirely by x-ray[8] and shows an oblique defect on the posterior surface of the barium filled esophagus just above the level of the aortic arch.

Surgical treatment consists of the excision of the offending artery. It is interesting to note that neither here, nor in the treatment of the tetralogy of Fallot, where again the circulation through the right subclavian artery is cut off, does any serious harm to the right arm follow.

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CLINICAL PATHOLOGIC CONFERENCE

University of Oklahoma School of Medicine

Presented by the Departments of Pathology and Surgery

BELA HALPERT, M.D. AND CHARLES M. O'LEARY, M.D.

OKLAHOMA CITY, OKLAHOMA

DR. HALPERT: In a patient with cancer, who has widespread metastases, it may be difficult to determine the site of origin of the growth. This is true clinically and, occasionally, it is true at necropsy. Histologic characteristics are usually helpful, but only

occasionally are they pathognomonic of a specific site of origin. The case we are presenting today illustrates such a situation. We are fortunate in having Dr. O'Leary with us who will analyze the clinical data.

PROTOCOL

Patient: N. L., white female, age 65, admitted January 9, 1947; died February 19, 1947.

Chief Complaint: Pain in back and abdomen; swelling of abdomen.

Present Illness: The patient was apparently well until about one year before admission when she began to have epigastric distress soon after meals. This was associated with pain and tenderness in the right upper abdominal quadrant, occasionally radiating to the right shoulder. She was often nauseated and vomited occasionally. There was some anorexia and dysphagia. These symptoms persisted, but did not increase in severity. In July, 1946, she noticed pain in the right costovertebral region which radiated into the right flank and epigastrium. One month later, a similar pain occurred on the left side. Soon thereafter, swelling of the abdomen first became evident and this gradually increased up to the time of admission. Generalized abdominal aching was a frequent complaint and was usually relieved by defecation. No abnormalities of the stool were noted. The patient believed she had lost six pounds during the course of her illness. She was seen in the Outpatient Department on December 30, 1946, and admitted to the University Hospital on January 9, 1947.

Past History: Not contributory.

Systemic History: Some dyspnea on exertion had been present for one year. The urine was thought to be pink-red occasionally during the past year. No vaginal discharge or bleeding had occurred since the menopause at the age of 45 years.

Physical Examination: On admission, the patient was emaciated, appeared chronically ill and older than her stated age. There was some evidence of dehydration. The superficial lymph nodes were not palpably enlarged. The eyes were sunken. The tongue was very red. The heart and lungs were negative. The abdomen was dome-shaped with flaring of the flanks. There was resonance to percussion over the dome with dullness in the flanks; this shifted with movement. A fluid wave was present. The bowel sounds were present but diminished. There was bilateral costovertebral angle tenderness. The superficial abdominal veins were dilated. Rectal examination revealed small, hard nodules posterior to the uterus. The cervix uteri was normal. Some atrophic changes were noted in the vagina. The pelvic organs were said to be "frozen." No definite masses were palpable.

Laboratory Data: On admission, urinalysis revealed a trace of albumin, occasional red blood cells and 9-12 white blood cells per high power field. R.B.C.'s numbered 3,950,000/cu.mm. with 12 Gm. hb. W.B.C.'s numbered 7,400 with 69 per cent neutrophils, 4 per cent eosinophils, 2 per cent basophils, 20 per cent lymphocytes, and 5 per cent monocytes. On January 10, 1947, the blood NPN was 47 mgm. per cent and the blood sugar was 114 mgm. per cent. On January 22, 1947, a glucose tolerance curve revealed a level of 114 mgm. per cent at the end of two hours. On January 17, 1947, plasma proteins measured 4.75 Gm. per cent with an albumin globulin ratio of 3.3/1.45. On January 30, 1947, the icteric index was eight. A bromsulfalein liver function test revealed 100 per cent retention at the end of five minutes and 15 per cent retention after 30 minutes. The cephalin flocculation test was reported as negative after 24 hours and 3+ after 48 hours. The thymol turbidity test was negative after 30 minutes and 18 hours. No occult blood was found in the stool. The Mazzini test of the blood was negative.

Clinical Course: Diagnostic studies included numerous roentgenograms. The chest was negative except for a calcified tuberculous complex in the right lung base. A G.I. series revealed no abdominal findings. Barium enemas revealed a persistent narrowing of the distal portion of the transverse colon. It could not be determined whether the cause of this narrowing was extrinsic or intrinsic. A gallbladder series revealed no filling and no opaque calculi. Pyelograms revealed a moderate degree of hydronephrosis on the right. On January 16, 1947, a peritoneoscopic examination revealed considerable free fluid. The parietal and visceral layers of the peritoneum were smooth and no nodules were seen. The liver was nodular in appearance with apparent areas of scar formation. The gallbladder, pancreas, spleen, and pelvic organs were not visualized. The ascending and right transverse portions of the colon were distended, and there was a bulging of the omentum in the left upper quadrant. On February 5, 1947, the peritoneal fluid had a specific gravity of 1.016 and contained over 400 mgm. per cent of protein. On two oc-

casions, the peritoneal fluid contained what appeared to be neoplastic cells. The patient's course was one of steady decline and she died on February 19, 1947.

CLINICAL DIAGNOSIS

DR. O'LEARY: When I first studied the case history which you have before you, I arrived at some rather definite conclusions. Upon further study of the case, these were gradually eliminated one by one until now practically nothing is left. If we consider, in order, the signs and symptoms which this patient presented, perhaps we will be able to make some clinico-pathologic correlation however. It is evident that this patient was ill for a period of from 12 to 13 months and it may be significant that during this time she suffered very little weight loss. It is also evident that she had ascites, and when we consider her story very carefully it appears that this ascites may have antedated the onset of her symptoms. The symptoms that she gave are not definitive of any organic lesions of the gastrointestinal system. One would ascribe them to some type of extrinsic pressure on the gastrointestinal tract. Perhaps this would be an effect of direct pressure on the stomach and small bowel. It is possible that this could be on a vascular basis. There must be considered also certain types of neurogenic disorders as are exemplified by "irritable bowel," pylorospasm, psychoneurosis, etc. At any rate, approximately three months after her major symptoms of pain began, she noticed enlargement of the abdomen, and this progressed until her admission to the hospital on January 9, 1947. We have now definite objective evidence of some rather serious disease. We know that she had ascites over a long period of time and that this developed very slowly. From an analysis of the ascitic fluid, we are inclined to consider this a transudate rather than an exudate because of the low protein and the relative low specific gravity of 1.016. This in itself is good evidence against an inflammatory basis, but there still remain several intraperitoneal causes of ascites, notably cirrhosis of the liver or some extrahepatic obstruction of the portal venous system. The presence of very prominent abdominal veins, as indicated in the history, would support a consideration of portal hypertension. The laboratory report of neoplastic cells within the peritoneal fluid is very important information and indicates that the patient had a malignancy, most likely primary somewhere within the peritoneal cavity. Peritoneoscopic examination revealed no evidence of tumor implants on either the parietal or visceral peritoneum.

With these findings of ascites and neoplastic cells in the peritoneal fluid, we might speculate as to the most probable site of malignancy in a woman of this age. We are told that barium enemas revealed a constant filling defect in the transverse colon and that it could not be determined whether this was extrinsic or intrinsic. In *carcinoma of the transverse colon*, the diagnosis is usually made late because obstruction does not occur until late in the course, nor is bleeding usually a prominent symptom. We must then consider carcinoma of the transverse colon, especially of the distal segment or the hepatic flexure. Would this give rise to ascites in the absence of peritoneal implants? We know that ascites becomes clinically evident only after 1500 to 2000 cc. of fluid have accumulated in the peritoneal cavity, so that in a case such as this, a great deal of fluid must have been present. In the absence of peritoneal carcinomatosis, it would be unlikely that carcinoma of the transverse colon would cause such ascites. If it produced marked retroperitoneal involvement or otherwise led to obstruction of the portal vein, such a phenomenon could be explained; this seems quite unlikely because of the site of primary involvement. This patient was carefully investigated from many aspects and we are impressed by some of the data which relate to hepatic function. The icteric index was eight, the bromsulfalein test was 100 per cent retention at the end of five minutes and 15 per cent retention after 30 minutes. The cephalin flocculation test was negative after 24 hours and 3+ after 48 hours. The thymol turbidity test was negative after 30 minutes and 18 hours. These would indicate to me that hepatocellular damage had occurred, but not to a marked degree and not sufficient to explain this much ascites. Nevertheless, it is evident that some hepatic changes are present. Upon peritoneoscopy, the liver was observed to be nodular and scarred. This suggests specifically *portal cirrhosis*. In this disease, the hepatic function tests previously mentioned might be expected to yield values similar to those observed in this case and thus are consistent with this diagnosis. *Parametrial malignancy* was considered, but is not too common at this age. The finding of a "frozen pelvis" in conjunction with small, hard nodules posterior to the uterus suggested secondary implantation rather than unilateral primary involvement. The peritoneo-

scopic examination failed to mention any findings in the pelvis and unfortunately the peritoneoscopist could not tell us very much about the left upper quadrant. In summary it is my feeling that this patient may have had cirrhosis with ascites secondary to the cirrhosis. I believe that she did have a malignant neoplasm which could have been primary in the transverse colon, but which probably was not. As to the primary source, I do not know.

ANATOMIC DIAGNOSIS

DR. HALPERT: At the completion of the postmortem examination our opinion was similar to that of Dr. O'Leary's — we didn't know the primary site of origin of this neoplasm either. The body was markedly emaciated and the abdomen was distended with fluid. In addition there was pitting, on pressure, of the lower extremities and lower portion of the trunk. The peritoneal cavity contained approximately 3500 cc. of straw-colored slightly turbid fluid. Both the parietal and visceral peritoneal surfaces were uniformly opaque, dull, and presented an appearance suggestive of sugar coating. This diffuse coating was obviously composed of neoplastic tissue and measured up to 0.3 cm. in thickness. The greater omentum was diffusely infiltrated by neoplastic tissue and was indurated and shortened. Occasional loops of small intestine were matted together by this neoplastic coating and were focally adherent to the parietal peritoneum. The "frozen pelvis" described clinically was a result of peritoneal carcinomatosis and fusion of the pelvic structures to each other. In this case I believe that a rectal shelf should have been palpable because of the marked thickening and induration, by neoplastic involvement, which had occurred. There was no evidence of portal hypertension or of primary inflammatory disease that might have been responsible for ascites. Ascites was a direct effect of this diffuse peritoneal carcinomatosis. Pleural cavities were free of fluid and there was no evidence of neoplastic involvement of the serosa here. The right lung weighed 510 gms., nearly twice the normal, and there was lumpy induration of the posterior portions. Microscopic studies confirmed the diagnosis of bronchopneumonia. The left lung was not involved. The heart exhibited considerable atrophy, weighing only 150 gms. It was not otherwise remarkable. The liver too was decreased in size, 875 gms. There were no discrete metastases — neoplastic involvement was limited to the serosal layer. The gallbladder was somewhat enlarged, though not strikingly so, and contained 35 cc. of milky white liquid with three facetted stones of mixed composition. Enlargement was not so much in the over-all size as in the thickness of the wall which varied from 0.3 cm. to 1.5 cm., being thickest at the fundus. The thickening at the fundus was actually the result of an anomaly, an adenomyoma. There was no obvious ulceration although there was an area of mucosal thickening and roughening. The entire gastrointestinal tract, from the esophagus to the rectum, was carefully examined, but without observing any area of ulceration or proliferation that might suggest a neoplastic process. The pancreas was not remarkable, nor did the kidneys and suprarenal glands show any pertinent changes. At the time of the gross examination a frozen section was made, but this gave little information except that the neoplasm was of columnar cell type. As is frequently the case when clinicians are at a loss for diagnosis, so with us — we took it out on the laboratory, and instead of taking 15 to 20 microscopic sections as is usual, we prepared 40. As a result of this, we finally reached a decision as to the primary site. Histologically, this neoplasm was predominately columnar cell in type and exhibited formation of numerous small tubular or gland-like structures. In addition, however, there were occasional solid nests which suggested pavement type epithelium and some of these cells appeared to have undergone keratinization. With this mixed pattern we considered especially, as primary sites, the uterus and the lungs, since in both instances it is possible to have a mixture of squamous and columnar cell tissue in carcinoma. In the former case the name of adeno-acanthoma is applied. This is a poor name, but euphonic — so we use it. Such a condition has also been described as occurring, rarely, in carcinoma of the stomach. All of these organs were re-examined most carefully, but without evidence of primary neoplastic involvement. To my knowledge no such mixed type of carcinoma has been described as arising in the gallbladder, but I know of no reason why it should not occur there. By sheer luck, in combination with much effort, we found the primary site to be in the gallbladder. This was, in a sense, an occult carcinoma since the site of origin was apparent only histologically. Here, there was neoplastic involvement of the *mucosa* and involvement of all the remaining layers as well. In every other epithelial organ which was involved, the neo-

plasm was limited to the serosal and subserosal layers. Since in these other organs, the mucosa was not involved, they could not have served as the source of origin.

Our final anatomic diagnosis was:

Cholecystitis, chronic, with cholelithiasis (mixed gallstones)

Carcinoma of the gallbladder, columnar cell and squamous cell (adeno-acanthoma) with peritoneal carcinomatosis and ascites

Emaciation and edema of the lower extremities and lower portion of trunk.

Bronchopneumonia, right

Adenomyoma of the fundus of the gallbladder

Tuberculous primary complex in right lung, calcified

Pleural adhesions, fibrous, bilateral

The old question as to whether the presence of gallstones, coincident with chronic inflammation, has anything to do with carcinoma of the gallbladder, arises in this case. In the past I have been of the opinion that the two conditions, when they occur together, are coincidental only. In this case, I believe that the presence of gallstones may have had a carcinogenic influence.

MEET OUR CONTRIBUTORS

Hubert E. Doudna, M.D., F.A.S.A., Oklahoma City, is the author of "The Use of Curare in Anesthesia" appearing in this issue. A graduate of the University of Michigan School of Medicine ('30), he limits his practice to anesthesia. Dr. Doudna is a member of the American Society of Anesthesiologists, the International Anesthesiac Research Society and the Southern Medical Association.

John P. Hackler, M.D., M.P.H., is also a contributor to the October Journal as he wrote "Current Problems in Public Health." He is a graduate of the Uniservity of Oklahoma School of Medicine ('33) and received his master of public health degree from Johns Hopkins in 1940. He limits his practice to public health and is a fellow of the American Public Health Association. He is now chairman of the scientific section on public health of the Oklahoma State Medical Association. Dr. Hackler was previously located in Seminole where he was engaged in private practice and at Stillwater where he was associated with public health.

Homer A. Ruprecht, M.D., F.A.C.P., wrote "Congenital Heart Disease" appearing in this issue. He graduated from Western Reserve University in 1928 and limits his practice to cardiology. He is a member of the American College of Physicians, the Southern Medical Association and the American Heart Association. Dr. Ruprecht is a trustee of the Tulsa County Medical Society.

James G. Hughes, M.D., Memphis, Tenn., is the author of "The Eearly Diagnosis and Treatment of Primary Pulmonary Tuberculosis in Children." Dr. Hughes limits his practice to internal medicine.

Presenting the Clinical Pathologic Conference in this month's issue were:

Bela Halpert, M.D., now of the University of Oklahoma School of Medicine and formerly with the pathology and bacteriology departments of Louisiana State University. He limits his practice to pathology and is a member of the following organizations: National Gastroenterological Association, American Association of Anatomists, American Association of Pathologists and Bacteriologists, and the American Society for Experimental Pathology.

Charles M. O'Leary, M.D., is a member of the American College of Surgeons and limits his practice to surgery. He assisted in presenting the Clinical Pathologic Conference.

TECHNOLOGISTS WILL MEET

The Oklahoma Society of Medical Technologists fall seminar will begin in the laboratories of the Tulsa University zoology department Saturday, October 25 at 2 p.m. Sessions are also scheduled for Sunday, October 26.

The tentative program Saturday afternoon includes:

Culture of Intestinal Protozoa, Mary Jane McClintock, bacteriologist, Oklahoma State Health Department.

Cardiolipin Lecithin Antigen Mixture, Mrs. Hazel Suessenguth, Mount Siani Hospital, Cleveland, Ohio.

Panel discussion on serology.

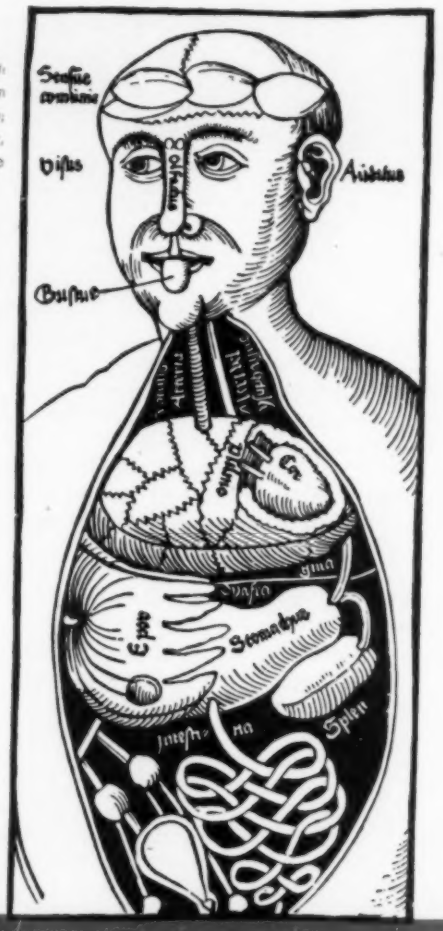
Interpretation of Serologic Tests for Syphilis with notes on non-specific reactions and on quantitative tests will be discussed at the Saturday night dinner meeting by F. R. Hassler, M.D., director of labs, Oklahoma State Health Department. Dr. Hassler has asked that pathologists and practicing physicians attend this meeting because material will be taken from questions frequently asked him by technicians and doctors alike. Premarital Wassermann tests will also be discussed.

Sunday morning the Tulsa Round Table of Medical Technologists will be hosts at a coffe and a business session will follow.

In addition to the above sessions, scientific pictures will be shown and Oklahoma specialists will present papers and material on parasitology and serology.

OBSTETRICS-GYNECOLOGY INDEX AVAILABLE

A cumulative index of the progress in obstetrics and gynecology from January 1, 1940, to date is now available as the Washington Institute of Medicine has recently published the *Obstetrics and Gynecology Index 1940-49*. Compiled in the surgeon general's library, Washington, D.C., by a staff of professional medical indexers, there are more than 19 500 references to articles of obstetric and gynecologic significance which have appeared in the medical and related scientific literature of the world. Annual cumulative supplements will be issued beginning January, 1948.



Anatomic woodcut: Title page from Pyligk Compendium, 1516—Courtesy, The Bettmann Archive

IN 1516:

Anatomic illustrations were crude; knowledge of the anatomy and the treatment of diseases of the heart and thoracic organs were extremely limited.

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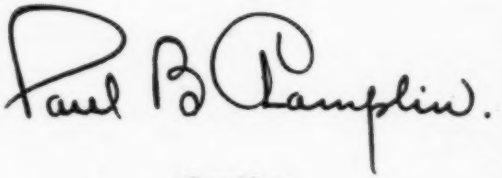
SEARLE RESEARCH IN THE SERVICE OF MEDICINE

President's Page

In every survey that has been made and in every congressional hearing, one of the first questions to be asked of the opponents to socialized medicine is "how many people in your state are covered with insurance for medical and hospital care?" We are very proud of the fact that 190,477 people in Oklahoma are now enrolled in the Blue Cross and 38,766 are enrolled in the Oklahoma Physician's Service. We have no way of accurately knowing how many people are covered through the private insurance carrier and the non-profit plans but the sum total is rising rapidly and if governmental interference is delayed for a reasonable length of time, the American people will voluntarily work out their own needs in this field.

The Blue Cross and Oklahoma Physician's Service is being sponsored by the Oklahoma State Medical Association and many other interested individuals. These being non-profit organizations they cannot employ a large number of salesmen to sell this to the public, therefore it is encumbent on the medical profession in each locality to take an active interest in sponsoring Blue Cross and Oklahoma Physician's Service in their own locality. In one community members who wish to belong to these organizations have their dues added to their gas bill. Other doctors have formed groups of their own. It is the responsibility of the individual physician to see that these organizations are fostered in their own communities and to see that everyone who wishes to join has an opportunity to become a member. If every doctor in the Oklahoma State Medical Association was an active salesman for Blue Cross and the Oklahoma Physician's Service it would be only a short time until the state would be adequately covered and the danger of socialized medicine would be minimized.

Every county medical society should appoint a committee to carry out this program. This is important. Do it now. Should you desire to contact a representative of Blue Cross or Oklahoma Physician's Service, write to either the Executive Office of the Association or Mr. N. D. Helland, 910 South Boston, Tulsa 3, Oklahoma, or First National Bank Building, Oklahoma City 2, Oklahoma.



President.

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ASSOCIATION ACTIVITIES

ASSOCIATION INSURANCE PROGRAM RE-SERVICING UNDERWAY

Accidents and major and minor illnesses don't mean time off without remuneration for Oklahoma physicians now. Figures revealed by the North American Accident Insurance company show that claims totaling $29,128.96 have been paid to 132 of our physicians since the association sponsored accident and health insurance program began.

These payments ranged from $5 to $10 for minor illnesses and accidents to well over $2,000 for more serious illnesses and accidents such as operations, pneumonia, and others.

This low cost broad coverage contract is not available on an individual basis and protects members against time loss by accident, illness, accidental death, and loss of a hand, foot, eye, etc.

John McDonald, M.D., chairman of our insurance committee, and Joe H. Jones, Tulsa manager, NAAIC, make plans for the association reservice campaign.

Physicians who desire more information concerning this program or who want to make application for any desired changes such as change of beneficiary will have an opportunity to have all this explained through an intensive reservice campaign now being conducted by the insurance agency. Field representatives of the company will contact physicians in all counties and members will be notified a few days before the field representative arrives so that insurance conferences can be arranged. This will also be an opportunity for physicians who have returned from service to obtain personal contact with a representative and learn the details of this health and accident (time loss) insurance program.

Members of the Oklahoma State Medical Association insurance committee are: chairman, John McDonald, M.D., Tulsa; Byron Cordonnier, M.D., Enid; and P. K. Groening, M.D., Oklahoma City.

This insurance program is underwritten by the North American Accident Insurance company of Chicago, an old line stock company organized in 1886 that has been doing business in Oklahoma since 1902. C. W. Cameron with offices at 2305 Apco Tower, Oklahoma City, is the southwestern division manager. Joe H. Jones is the Tulsa manager and is located at 311 National Mutual Building, Tulsa.

DEAN OF MEDICAL SCHOOL ANNOUNCES RESIGNATION

Jacques P. Gray, M.D., has resigned his position as Dean of the University of Oklahoma School of Medicine effective November 15. He will become medical consultant with Parke Davis and Co.

Dr. Gray came to O. U. as Dean in September, 1946, and his contribution to medical education and Oklahoma Medical Research Foundation has been outstanding.

Dr. Gray, during the time he was Dean, gave unstintingly of his time in contacting the county medical societies and individual physicians in the interest of the University of Oklahoma School of Medicine and the promotion of the Medical Research Foundation.

Dr. George Cross, President of the University of Oklahoma, has indicated that a successor to Dr. Gray will be picked as soon as possible and Dr. Cross has intimated that he will request representatives from the University of Oklahoma Medical School alumni association, the Oklahoma State Medical Association, the Oklahoma Medical Research Foundation, the pre-clinical staff, and the student body to assist him in the selection of the new Dean.

Dr. Gray's resignation has pointed up the need for a general revaluation of the needs of the medical school, both from an administrative as well as a financial point of view.

NORTHEAST OKLAHOMA LEADS IN BLUE CROSS, O.P.S.

Northeastern Oklahoma had the highest percentage and southwestern Oklahoma ranked lowest when tabulation was made recently of Blue Cross and Oklahoma Physicians Service participation.

The Tulsa area, including 11 counties in northeast Oklahoma, topped the records of the five other Oklahoma groups. Washington county in the Tulsa area had the best representation with 31.6 per cent. Lowest of the northeastern Oklahoma group is Mayes county with 1.6 per cent participation. Tulsa county itself, with a total population of 213,200 has 63,828 members of Blue Cross and 14,105 O.P.S. participants, giving it 30.0 per cent.

The Enid region of 16 counties in northwestern Oklahoma was second with a total per cent of 11.0. In that area, Kingfisher county with a population of 11,804 took the lead with 14.9 per cent. Texas county was lowest with 1.5 per cent of its 9,463 persons.

Eight counties in central Oklahoma make up the Oklahoma City area whose overall total of 8.9 per cent made that region rank third. Cleveland county had the lead in this group with 14.3 per cent participation while Oklahoma county was second with 9.9 per cent. Payne county's 1.6 per cent was lowest.

Other areas participated as follows: 10 counties in the Muskogee region, 5.0 per cent, population 247,706; 17 counties in the Ada group, 4.5 per cent, population, 342,444; and 15 counties in the Hobart area, 3.6 per cent, population, 309,293.

TULSA COUNTY LIBRARY HISTORY TOLD

The library of the Tulsa County Medical Society is currently observing the 15th anniversary of its formation in 1932. From an obscure beginning as the project of a small group of individual physicians, the library has grown into one of the largest and most complete private medical libraries in the southwest. At present it serves not only the membership of the Tulsa County Medical society but large numbers of doctors in eastern Oklahoma.

The progress of the medical library in its 15 years has been unusually rapid, accentuated in the last seven years by the employment of a trained medical librarian to supervise its operation. During this period the library has more than tripled in the amount of scientific and general medical information and material on file. Space requirements have necessitated constant expansion of the library quarters at 1203 Medical Arts building, Tulsa, and a long range plan of the society looks to the eventual housing of the library in a separate structure.

As early as 1922 the idea of an organized medical library was entertained by the Tulsa County Medical society. The published history of the society records that several ambitious presidents of the society made definite efforts to encourage such a project. It was not until 1932, however, that a small number of individual physicians in the Medical and Dental Arts building formed the Journal Club, each contributing textbooks and periodicals to a common collection. Two years later this nucleous was deeded to the Tulsa County Medical Society and active direction of the project assigned to a medical library committee.

For several years the library suffered from lack of suitable quarters and failure to properly catalog and classify the available material until a trained librarian was employed in 1940.

The rapid growth of the medical library is well illustrated in a study of comparative statistics. In 1940, approximately 2,000 textbooks and periodicals were on hand. Seven years later, the medical library numbers almost 9,000 textbooks and periodicals, over 4,000 reprints, and a mass of miscellaneous material. An extensive collection of rare medical books has been developed, and a splendid section of books of medical history is growing rapidly. In equipment, the library now boasts an attractive reading room, tastefully furnished with an eye towards comfort and serviceability. Display magazine and journal racks, modern library shelving, and useful book cupboards permit material to be kept in ready availability.

This phenomenal growth is due in large measure to the personal interest of the library's patrons who contribute both in subscription prices and by donation of individual copies to the library. Endowment funds, civic and industrial contributions and other groups also annually make unsolicited contributions of money, books, and equipment.

The library is a member of the Medical Library Association of America and derives much benefit from the exchange service of this association. Last year the library sent more than 50 packages of books and journals to medical libraries of the Philippine Islands which had been ravaged by the Japanese invasion.

Recently, other types of reference material, notably steroscopic views, micro-films, motion pictures, slides, and strip film have been added to the library. Special sections in dentistry and pharmacology are also being expanded. Increasing attention is being given to material concerning medical economics and medical history. Some of the rare medical books date back to the 17th century and are collectors items.

The library is open daily except Saturday and Sunday and all medical doctors of Oklahoma are cordially invited to visit it at any time. Physicians wishing to enjoy library privileges should write the librarian for regulations pertaining to non-resident physicians.

SOUTHERN MEDICAL ASSOCIATION SESSION TO BE IN BALTIMORE

Upon the invitation of the Baltimore City Medical Society, the annual meeting of the Southern Medical Association will be held there during Thanksgiving week of this year. The last Southern Medical meeting there in 1936 broke all attendance records.

The meeting this year will be concentrated into three days instead of three and one-half. Registration will open Monday morning, November 24, at 8:30 with the program for that day conducted by the local profession. The 21 sections of the Association will hold their meetings on Tuesday and Wednesday, November 25 and 26. Registration, the majority of the meeting and the scientific and technical exhibits will be found at the Fifth Regiment Armory on Hoffman Street. Other meetings will be conducted at the home of the Medical and Chirugical Faculty of Maryland and the Baltimore City Medical Society, 1211 Cathedral Street, two and one-half blocks from the armory.

Hotel reservations should be made through the Hotel Committee, Southern Medical Association Meeting, 1714 O'Sullivan Building, Baltimore 2, Maryland. The hotels will make no reservations directly with physicians, but will take them only from the committee.

The clinical sessions and the sections for Baltimore will meet as follows:

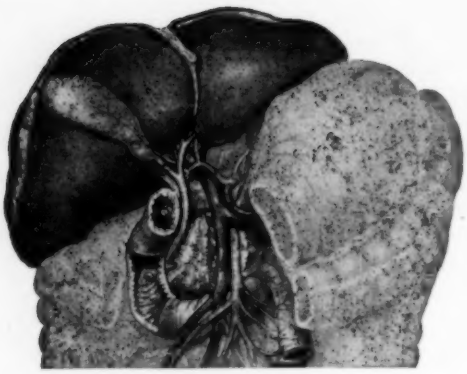
Monday, November 24. Forenoon and afternoon—general clinical sessions, Baltimore Day, medicine, surgery, and opthalmology and otolaryngology, presentations by physicians of Baltimore. A general public session will be held at the Lyric Theater on Monday evening.

Tuesday, November 25. Forenoon—Section on Gastroenterology, Section on Neurology and Psychiatry, Section on Orthopedic and Traumatic Surgery, Section on Urology, Section on Industrial Medicine and Surgery, and Section on Medical Education. *Afternoon*—Section on Medicine, Section on Ophthalmology and Otolaryngology, Section on Surgery, Section on Obstetrics, Section on Physical Medicine, and Section on Public Health. A general public session featuring the address of the President followed by the President's reception and ball will be at the Lord Baltimore Hotel on Tuesday evening.

Wednesday, November 26. Forenoon—Section on Pediatrics, Section on Dermatology, Section on Radiology, Section on Gynecology, and Section on Anesthesiology. *Afternoon*—Section on General Practice, Section on Allergy, Section on Pathology, Section on Proctology, and Section on Ophthalmology and Otolaryngology.

PROGRAM ASSISTANCE GIVEN BY REHABILITATION SERVICE

The Vocational Rehabilitation Service has a suggestion for county societies in doubt about what to use for their next program. Those with openings on their programs are asked to contact Voyle C. Scurlock, director, 708 Midwest Building, Oklahoma City. A new film, "Comebock," in technicolor gives the story of rehabilitation and is available for programs.



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WHAT DOES THE PUBLIC THINK?

Following is part two of a Journal summary of "Opinions of the Public and of Physicians," a report compiled by The Opinion Research Corporation of Princeton, N. J., for the Medical Services Foundation, Chicago. The report consists of a nation-wide survery of opinion incorporating information obtained during the period from 1943 to May, 1947.

The deep depression of the Thirties, combined with the promotion of a collectivistic philosophy, by a paternalistic Federal Government — created new problems for the medical profession. In February of 1939, the first National Health Bill was introduced in the Congress by Senator Wagner.

There followed a succession of Wagner-Murray-Dingell Bills. The proposals were truly revolutionary in their intent and method. It was essential for the profession to take steps to safeguard the interests of the public. An urgent need was created that necessitated telling the people of American medicine's principles, methods, and points of view. The National Physicians Committee came into being to aid adequately in meeting this new responsibility.

The extent to which these efforts have been effective is evidenced by the public's awareness of the American Medical Association and record of its activities.

The question was asked, "Have you heard of the American Medical Association?" The answers were:

	1947 Total	Upper Income	Middle Income	Lower Income
Have heard of A.M.A.	74%	92%	83%	61%
Have not	26	8	17	39

Equally impressive is the vote of approval and commendation given by the people. The question was asked of those who knew of the Association, "In general, do you approve or disapprove of the American Medical Association?"

	1947 Total	Upper Income	Middle Income	Lower Income
Approve of A.M.A.	59%	70%	62%	49%
Disapprove	5	7	7	2
No Opinion	36	23	31	49

It should be noted that the vote of the public is practically 12 to 1 in its approval. It can be assumed that this awareness and this overwhelming vote of confidence is traceable to the nature and scope of A. M. A. activities beyond strictly scientific developments.

Evidence of this is provided in the public's growing awareness and attitude toward Socialized Medicine. These questions were asked: "Have you heard of the term Socialized Medicine?" and "Are you for or against Socialized Medicine?" The answers were:

	Have Not Heard	Have Heard	For or Against: For	Against	Don't Know
1943	57%	43%	13%	22%	8%
1947	45	55	13	34	8

In six years, 12% more people are familiar with the term and of each group of 55 people who have heard of Socialized Medicine, 34 are opposed. There is other evidence of equal importance and significance. The question was asked: "Do you think it would be good or bad for the country if the medical profession were controlled by the National Government?" The replies were:

	Good For Country	Bad For Country	No Opinion
1943	24%	61%	15%
1947	23	65	12

Two other questions were asked: "Do you think that under a Government Medical Plan you would be able to call any doctor you want, or do you think it likely that your choice would be limited?" and "Would this be satisfactory to you or not?" The answers were:

	Call Any Doctor	Don't Know	Satisfactory Choice Limited	Yes	No	Don't Konw
1947	19%	15%	66%	9%	54%	3%

The question was asked, "Some say the Government might decide in which city or town a doctor could practice. Would that be good or bad for the public?" The opinions registered were:

	Good	Bad	Qualified	Don't Know
1947	17%	69%	7%	7%

The people were asked: "Some say that under a government plan, doctors might not be allowed to choose what they'd specialize in. How would it seem to you —good, or bad for the people — to have doctors told what they should specialize in?" The answers:

	Good	Bad	Qualified	Don't Know
1947	5%	81%	6%	8%

Sixty-six per cent of the people believe that the doctor should not be told how many patients he can treat. One other instance is provided — the question: "Would you vote for or against the Government's setting the fees doctors can charge for each type of service?" The answers were:

	1943	1947
For Government setting fees	33%	32%
Against	57	59
Don't Know	10	9

An equally remarkable accomplishment is made of record when the public is queried about the National Physicians Committee. At all times the NPC has operated within the policy decisions of the A. M. A. House of Delegates. Always its activities have been directed toward the achievement of objectives previously defined. Its task was that of making clear the meaning and implications of issues. It never sought institutional popularity or credit. The foregoing detailed attitudes of the people and the merely nominal public awareness of the NPC provide evidence of the extent to which these ends have been achieved. Two questions were asked: "Have you heard of the National Physicians Committee for the Extension of Medical Service?" and "In general, do you approve or disapprove of the National Physicians Committee?" The answers were:

	Total	Upper Income	Middle Income	Lower Income
Have not heard of NPC	95%	94%	95%	95%
Have heard	5	6	5	5
Approve of NPC	2	3	2	1
Disapprove		1		1
No opinion	3	2	3	3

To all intents and purposes, the NPC is unknown to the general public. This is as it was intended and as it should be.

On the other hand, within the medical profession there is an unusually high degree of awareness of this institution. The physicians of the nation were polled on the basis of opinion samples. Physicians were asked two questions: "Have you ever heard of the National Physicians Committee for the Extension of Medical Service?" and "Do you approve or disapprove of the National Physicians Committee?" The answers were:

(Continued on Page 439)

AMES

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OBITUARIES

George Wendell Phillips, M.D.
1887-1947

G. W. Phillips, M.D., Sayre, died September 1 following a heart attack several days before. He had been in ill health for more than a year.

Dr. Phillips was born at Mt. Carmel, Ky., in 1887 and moved to Sayre in 1918. He was a graduate of the University of Chicago and received his medical degree from the University of Tennessee. He was a former member of the Masonic lodge and of the I.O.O.F. lodge and was active in the American Medical Association and the Oklahoma State Medical Association. He was a member of the Christian church of Sayre.

Surviving are his widow, Mrs. Mattie Phillips of Sayre, one daughter, Mrs. Ten Wonder of Borger, one son, Wendell, of Sayre, two brothers, John and Henry of Hamilton, Ohio, one sister, Mrs. Nana Pennington, also of Hamilton, and two grandchildren.

Zale Chaffin, M.D.
1914-1947

Zale Craffin, M.D., died August 29 at Mercy hospital in Oklahoma City following an illness of two years.

Dr. Chaffin was with the state health department in 1937 and 1938 and joined the city health department the following year where he served until joining the army in 1942. Following his discharge from the army in 1945, he made his home in Bakersfield, Calif., until returning to Oklahoma City in July. Hs was graduated from the University of Oklahoma school of medicine in 1936.

Survivors include his widow, Violet, and three daughters, Toy, Gaye, and Judith of Bakersfield, and his parents, Mr. and Mrs. Owen Chaffin, three sisters, Mrs. Edwin Fair, Miss Betty Lou Chaffin, and a brother, Bill, all of Oklahoma City. Another sister, Mrs. Louis Humpton, lives in Providence, R. I.

John Maxwell Watson, M.D.
1873-1947

John Maxwell Watson, M.D., died at his home in Enid July 31 following a heart attack.

Born at Vienna, Ind., he attended the Louisville, Ky., medical school and the Washington university medical school at St. Louis where he was graduated in 1898. Dr. Watson came to Hunter in 1903 and later moved to Lamont where he practiced medicine until he came to Enid in 1923.

Dr. Watson was city physician and health officer at the time of his death and he had served as president of the Grant County Medical Society when he lived in Lamont. He served several times as president of the Garfield County Medical Society during his residence in Enid. Active in civic affairs, he was also a member of the Masonic lodge.

Surviving are his widow of the home address in Enid and five daughters, Mrs. Louis Wilke of Denver, Colo., Mrs. Evans Talley of Enid, Mrs. C. W. Edwards of Chicago, Mrs. Virginia Pickens of Enid, and Eleanor Watson of Enid. A sister, Mrs. August Henderson of Jeffersonville, Ind., and six grandsons and one granddaughter also survive.

T. F. Spurgeon, M.D.
1863-1947

T. F. Spurgeon, M.D., pioneer Oklahoma physician, died August 14 at his home in Frederick following a three months illness.

Dr. Spurgeon is a graduate of the Barnes Medical College, St. Louis, Mo., with the class of 1898 and had been a practicing physician in Frederick since 1900. He was a member of the Baptist church of Frederick, the Frederick lodge, Ancient Free and Accepted Masons and was one of the organizers of the Tillman County Medical Society. He was active in civic affairs and took a prominent part in the betterment of schools in his section of the state.

Among the survivors are the widow, Mrs. Leora F. Spurgeon, a son, Theron L. Spurgeon, both of Frederick; a daughter, Mrs. Knox Byrum, Shawnee, a granddaughter, Leah Frances Byrum, Shawnee; a brother, G. M. Spurgeon, and a sister, Mrs. J. M. Nulty, both of Frederick.

Catherline T. Brydia, M.D.
1875-1947

Catherine T. Brydia, M.D., died August 16 in Ada after an illness of two weeks.

Dr. Brydia was a graduate of the American Medical School, St. Louis, Mo., in 1913. Specializing in obstetrics and diseases of women and children, Dr. Brydia was approved at a special meeting of the Board of Commonwealth Foundation for graduate work in obstetrics which she completed at Martha Hague hospital, Jersey City, New Jersey, the only exception ever made for a doctor over 65. She served as president of the Pontotoc County Medical Society and then on the state board of health.

She is survived by her husband, Fred F. Brydia, two daughters, Mrs. Grace Canada and Mrs. Orel Busby, six grandchildren, five sisters and five brothers.

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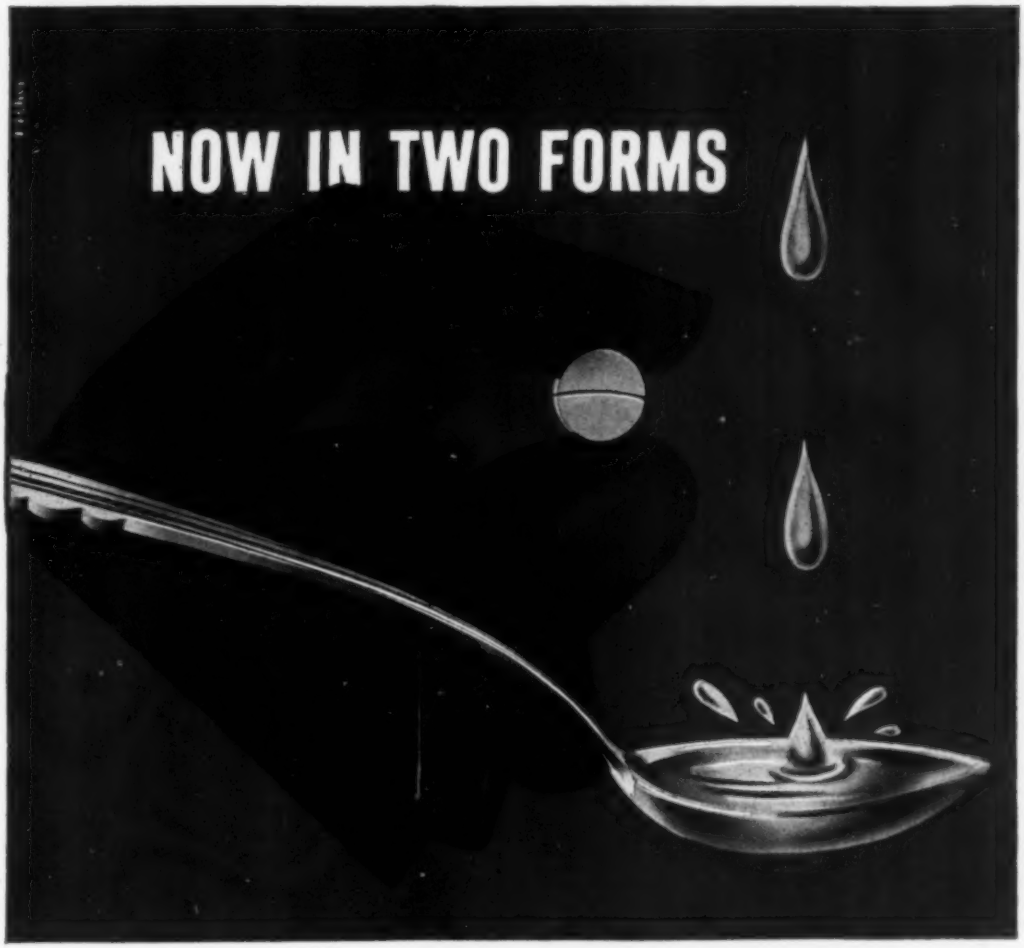

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BOOK REVIEWS

CONCISE ANATOMY. Linden F. Edwards, Ph.D., Professor of Anatomy, Ohio State University. 472 illustrations, some in color. 548 pages. The Blakiston Company, 1947. Price $5.50.

This newly titled book is an enlargement and revision of a previous work, *Anatomy for Physical Education.* The author considers the new book also adaptable to such courses as physical therapy, medical technology, dental hygiene, nurse's training, and other disciplines peripheral to medicine. The book contains 548 pages, and includes a bibliography of 47 names, largely those of textbooks. The index covers 29 pages, where topical entries are in Roman type, with illustrations of these topics in italics. Approximately the first one-fourth of the book is devoted to general anatomical considerations embracing the whole field of systemic anatomy under the following chapter headings: General Microscopic and Developmental Anatomy, General Osteology, General Arthrology, General Myology, General Neurology, General Angiology, and General Dermatology. Thus the back ground necessary to a proper understanding of anatomical structure is provided by a skillful combination of factual anatomy with general biological information. Certain subjects not customarily found in textbooks of anatomy are here briefly presented, e.g., the function of phosphatase in bone formation, also the role of bone tissue in providing a free calcium reserve which is drawn upon by the blood when blood calcium falls below 10 mg. per 100 cc. of serum.

In an introductory chapter the author points out that certain pathological conditions and physical anomalies indicate maladjustments of the human organism. He expresses the opinion that maladjustment to the upright posture is reflected in hernia, prolapse of certain viscera, varicose veins and dizziness. He thinks that these and other conditions indicate an "inadequacy of adaptation to the vertical stance." Another example of maladjustment the author calls "maladjustment to human sexual dimorphism," as demonstrated in hermaphrodism "physical or psychic." Also considered in this category are functional mammary glands in males (gynecomastica) and the absence of such glands in females (amastica). As part of the chapter on angiology is a very complete account of the composition of blood. Here opsonins, fibrinogen, prothrombin, and antitoxins are designated "protective substances," whereas hormones are considered "regulative substances." The reticuloendothelial system is briefly defined and discussed. The phases of the cardiac cycle are analyzed, with estimates of the time interval required for each. Clinical conditions such as arterio-sclerosis, aneurysm, and varicose veins are discussed.

Most of the book (357 pp.) is devoted to the gross anatomy of the extremities, head, neck, trunk, thorax, and abdomen, taken in that order. The endocrine system is accorded a separate chapter. The study of muscles is greatly facilitated by tabulation of the details of origin, insertion, nerve supply, and action. Illustrative material is ample (324 figs.), but is to a large extent borrowed from other works on anatomy and allied subjects. A number of these figures were not too good in the original, and of course were not improved in the process of copying.

Concise Anatomy covers very thoroughly the fundamentals of its subject, and should suffice to meet the needs of those who require a comprehensive introduction to human anatomy. Its style is clear and vigorous, rendering the subject matter easy to read and understand; these excellent qualities should make it a valuable handbook for those who wish to retain a working knowledge of anatomy.—Ralph E. Chase, A.B., B.S., A.M.

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. A complete dictionary of the terms used in medicine, surgery, dentistry, pharmacy, chemistry, nursing, veterinary science, biology, medical biography, etc., with the pronunciation, derivation, and definition by W. A. Newman Dorland, A.M. M.D., F.A.C.S., Lieut. Col., M. R. C., U. S. Army, member of the committee on nomenclature and classification of diseases of the American Medical Association, editor of "American Pocket Medical Dictionary"; with the collaboration of E. C. L. Miller, M.D., Medical College of Virginia. Twenty-first edition with 880 illustrations, including 233 portraits. 1660 pages. W. B. Saunders Co.: Philadelphia and London, 1947.

The twenty-first edition of Dorland is on the reviewer's desk. The publishers have rendered a great service to the medical profession by so promptly assembling and defining the new words and terms arising through the exigencies of war and in the normal course of progress.

We can do no better than to cite the first paragraph of the preface to this edition:

"This twenty-first edition of the Dictionary aims to cover as completely as possible the voluminous additions to medical terminology resulting from the research and discovery of the war years. Besides the field of actual war medicine and surgery, these additions are rich in the specialties of tropical medicine; aviation medicine; medical zoology and mycology; biochemistry and pharmacology, with antibiotics, enzymes, vitamins and endocrines; physics, and nucleonics, including the medical applications of radioactive isotopes of the chemical elements. The entire volume has been scrutinized line by line in the interest of factual and typographic accuracy."

The editors indicate that they had advice and help from staff members of the A.M.A., the Mayo Clinic, medical teachers, and many others. The W. B. Saunders Company deserves commendation.—Lewis J. Moorman, M.D.

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HAVE YOU HEARD?

J. J. Smith, M.D., of Shattuck has been appointed County Superintendent of Health of Ellis County.

Eight initiates from Oklahoma were accepted into fellowship at the 23rd convocation of the American College of Surgeons held in New York September 12 as the final event of the clinical congress. They are *Nasry F. V. Barkett, M.D.*, Oklahoma City; *Battey B. Coker, M.D.*, Durant; *Everett B. Neff, M.D.*, Oklahoma City; *Cole D. Pittman, M.D.*, Bartlesville; *Franklin D. Sinclair, M.D.*, Tulsa; *Robert S. Srigley, M.D.*, Ardmore; *Richard G. Stoll, M.D.*, Chickasha; and *Benjamin W. Ward, M.D.*, Tulsa.

W. E. Hubbard, M.D., formerly of Frederick, has recently opened an office in Tipton. Dr. Hubbard served three and one-half years as an army surgeon.

M. B. Prentiss, M.D., has resumed his practice at Snyder after spending the past few years in Florida. He is the father of *H. M. Prentiss, M.D.*, Roosevelt, who is in Rochester, Minn., taking postgraduate work in surgery at Mayo Hospital.

Two new assistant physicians are now on duty at Central State Hospital, is has been announced. They are *H. B. Witten, M.D.*, and *George W. Winkelman, M.D.* Both are graduates of the University of Oklahoma School of Medicine and were in military service during the war.

Samuel B. Leslie, Jr., M.D., has opened an office at Morris for the practice of general medicine and surgery. A graduate of the University of Oklahoma School of Medicine, he interned at the University of Kansas Hospital and was on the surgical staff of a general hospital overseas while in the army.

M. M. Turlington, M.D., recently celebrated his 79th birthday and invited all the old timers of his home town of Seminole to a birthday dinner to help him celebrate and reminisce.

O. L. Parsons, M.D., attended the Third American Congress on Obstetrics and Gynecology at St. Louis in September. Dr. Parsons is from Lawton.

J. B. Hollis, M.D., Mangum, attended the national American Legion convention in New York City and addressed the Mangum Rotary Club recently giving highlights of the convention. Dr. Hollis is a member of the national rehabilitation committee of the Legion.

John R. Reid, M.D., has returned to Altus to resume medical practice after a year's absence spent in special study in Los Angeles.

J. B. Tolbert, M.D., formerly of Oklahoma City, has established a practice in the First National Bank Building in Mountain View, Oklahoma. He is a graduate of Oklahoma University School of Medicine, and for the past year has been resident physician and surgeon at the Oklahoma City General (Mercy) hospital.

MEDICAL SCHOOL

CALENDAR — OCTOBER, 1947

SURGICAL PATHOLOGIC CONFERENCES—Each Tuesday 12:00 Noon to 1:00 P.M.

MEDICAL CONFERENCES—Each Wednesday 9:00 A.M. to 10:00 A.M.

CLINICAL PATHOLOGICAL CONFERENCES — Each Thursday 12:00 Noon to 1:00 P.M.

TUMOR CLINICS—First and Third Tuesdays (October 7 and 21) 8:00 A.M. to 9:00 A.M.

UROLOGICAL-PATHOLOGIC CONFERENCE—Second Tuesday (October 14) 8:00 A.M. to 9:00 A.M.

MONTHLY STAFF MEETING—Second Friday (October 10) Dinner, 6:15 P.M.

RADIOLOGIC CONFERENCE—Fourth Monday (October 27) 6:45 P.M. to 7:30 P.M.

Frank H. Austin, M.D., (Med '45) has received an appointment of residency at University Hospital, Columbus, Ohio.

James Larry Southworth (Med '38) was a recent visitor in Oklahoma. At present he is assistant chief surgeon at the U. S. marine hospital in Baltimore, Md. Dr. Southworth, author of numerous articles in *The New England Medical Journal* and *The Journal of the American Medical Association*, is now engaged in research on hypertension.

Cleve Beller (Med '43) has been appointed resident in medicine at University Hospital, Oklahoma City.

Lieutenants John Blender (Med '45), Ross Miller (Med '45), and Robert LeNeve (Med '45) have been assigned to the Far Eastern Command, U. S. army, Yokohama, Japan.

Jack B. Garlin (Med '45), now a Lt. j.g. stationed at the USMC supply depot in Barstow, Calif., was a recent visitor at the medical school.

Frank W. Woods (Med '35) may now be reached at 601 Huntington Building, Miami, Fla. He has resumed private practice of urology there.

NEW MEMBERS

Physicians who have recently associated with their County Medical Societies and the Oklahoma State Medical Association as new members are as follows:

William S. Bivens, Medical Arts Building, Tulsa
Leonard J. Ellis, 4601 Reeves Drive, Oklahoma City
Royston Miller, 2020 Xanthus, Tulsa

H. M. McClure, M.D., Chickasha, was principal speaker at a Rotary Club noon luncheon recently. Dr. McClure reported on the club's disaster committee and the plans that have been drawn up.

C. A. Traverse, M.D., Alva, was elected president of 257 candidates for the 32nd degree in Scottish Rite Masonry. The degrees were received in Guthrie.

THE POST GRADUATE MEDICAL ASSEMBLY OF SOUTH TEXAS

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DISTINGUISHED GUEST SPEAKERS

Dr. Albert H. Aldridge—Obs. and Gyn.
New York City

Dr. Charles Branch—Pathology
Chicago

Dr. Granville A. Bennett—Pathology
Chicago

Dr. Alexander Brunschwig—Surgery
New York City

Dr. Mandred W. Comfort—Internal Medicine
Rochester, Minn.

Dr. Manuel M. Garcia—Radiology
New Orleans, La.

Dr. Jack S. Guyton—Ophthalmology
Baltimore

Dr. Edw. Starr Judd, Jr.—Surgery
Rochester, Minn.

Dr. J. H. Maxwell—Otolaryngology
Ann Arbor, Mich.

Dr. L. H. Mousel—Anesthesia
Washington, D. C.

Dr. Chas. M. McLane—Obs. and Gyn.
New York City

Dr. Robert Collier Page—Internal Medicine
New York City

Dr. Geo. E. Shambaugh, Jr.—Otolaryngology
Chicago

Dr. Clifford Sweet—Pediatrics
Oakland, Calif.

Dr. Phillips Thygeson—Ophthalmology
San Jose, Calif.

Dr. Edw. Weiss—Internal Medicine
Philadelphia

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MEDICAL ABSTRACTS

EPIDEMIC RETROBULBAR NEURITIS IN THE PHILIPPINES DURING THE JAPANESE OCCUPATION. G. de Ocampo et al. American Journal of Ophthalmology, 30:698-704, (June) 1947.

There are more and more reports on the ocular lesions of prisoners of war and the possible role of malnutrition in the development of eye disease. The report of the present authors is based on studies made on Filipinos who suffered from retrobulbar optic neuritis which occurred in epidemic proportions in the Philipines during 1942 and 1943.

The Philippine epidemic commenced soon after the outbreak of the war and reached its peak of incidence about December, 1942; it disappeared at the end of 1943. The present report is a follow-up study of 28 cases. The youngest patient in the series was 15 years of age, and the oldest 60 years of age. The average age was 32 years. There was no difference in the incidence according to the sex of patients. All patients were of the middle class. Many of them were unemployed but none of them was destitute. The disease, however, could be found even in wealthy patients.

Except in one case, all patients had dilateral affection. The primary complaint was a failure of vision described as similar to that observed when looking through smoke. The maximum failure of vision was three to four weeks after the onset of the disease. Photophobia was a complaint in one third of the cases. Some patients complained of lacrimation with either itching, redness, or smarting of the eyes. Ocular pain, mucoid discharge, dizziness, and the sensation of warmth in the eyes was observed in some instances. Headache, generally frontal, was present in four cases. Angular blepharitis associated with angular stomatitis was noted in only one case. Bilateral scotoma was a complaint of only one case.

Augular stomatitis was present at one time or another during the course of the eye disease in 71 per cent of the patients. Symptoms referable to peripheral neuritis, such as numbness around the mouth and of the extremities and paresthesia of the toes, feet, legs, or fingers, hand, and forearms, were pound in 50 per cent of the patients. Glazed tongue, scrotal pruritus were other characteristic symptoms. All patients lived upon an improper diet, limited to rice and fish. None of them showed, however, a loss of weight.

In all except two cases there were no external signs of the eye disease. One patient showed slightly abnormal limbal vascularization, and another had an anterior polar cataract. The vision in all cases ranged from 20/30 to 2/200 or less. The subnormal near vision present in all cases was not due to accommodative error.

A scotoma was demonstrable in every case. It was absolute in 24, and relative, especially to red, in four. The blind spots were normal in 50 per cent of the patients. Sixty-four per cent had normal visual fields, while others showed contraction of the field to different degrees. Seventy-one and four tenths per cent had normal fundi. A few showed pallor of the optic disc, while others had no foveal reflexes.

Various forms of treatment were tried. A change of diet with the addition of beans containing around 90 international units of vitamin B_1 (per serving) plus green leafy vegetables was advised in half of the series. Others were instructed to take orange and rice bran. In some cases transorbital diathermy was also tried. There was an improvement in 78 per cent of the patients.

In connection with the epidemic the authors studied the diagnosis and the nature of retrobulbar neuritis. Absence of foveal reflexes is of little significance; it may occur also in normal people. When the relative scotoma for red is more prominent than for blue the condition is more likely a retrobulbar neuritis than a retinal lesion.

The term "retrobulbar neuritis" is preferable to "nutritional amblyopia" or to "optic atrophy." The patients were suffering from a combined deficiency of many food factors. Children were remarkably exempt from this epidemic.

There is much confusion in the literature concerning the nutritional causes of retrobulbar neuritis. Vitamin deficiencies produced experimentally do not produce retrobulbar neuritis. This disease is a dystrophy of a nerve, and the history of each individual nervous system is important for the explanation of the onset of this disease. During the Japanese occupation the shortage of food as well as the steady strain on the emotions was traumatic to the nervous system. Even in the ordinary toxic amblyopia of smokers and drinkers, amblyopic symptoms most likely develop during a period of emotional strain.

The authors also believe that the Filipino is liable to diseases of the nerves and of the nervous system. This racial predisposition was the "soil" of the described epidemic retrobulbar neuritis.

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WHAT DOES THE PUBLIC THINK?
(Continued from Page 431)

		Approve	Disapprove	Qualified Answer	No Opinion
Have heard of NPC	75%	45%	16%	11%	28%
Have not heard	25				

Thus is recorded a 3 to 1 vote of definite approval of NPC and an additional 11% of tacit approval, by the profession.

NPC's value and place, after only seven years of efforts, is established not only by the opinions of the public but as well by the opinions of physicians on the issues with which it has been chiefly concerned. Physicians were asked, "Are you familiar with the Wagner-Murray-Dingell Bill which proposes to set up a Federal Medical Care Program to be paid for out of increased social security payroll deductions?" The responses were:

	1945	1947
Yes, am familiar	86%	91%
No, am not familiar	14	9

and the question, "From the standpoint of the *general public*, do you think the passage of this bill or some similar bill would be a good thing or a bad thing?" The responses of the 91 out of every 100 who were familiar with these proposals were:

Good thing for the public	11%
Bad thing	78
Some ways good — some bad	10
No opinion	1

And one other question answered by physicians who were familiar with the Wagner-Murray-Dingell Bills, "From the standpoint of the *doctors* of the country, do you think passage of this bill or some similar bill would be a good thing or a bad thing?" The answers were:

	1945	1947
Good thing for doctors	12%	9%
Bad thing for doctors	76	81
Some good — some bad	9	7
No opinion	3	3

In such manner, through this nation-wide investigation by a recognized and impartial research institution, the public has registered its opinions of the American Medical Association and its awareness of the great basic issues involved.

In the same manner the physicians have registered their opinions of the National Physicians Committee and their attitudes toward these same issues. Out of such degree of awareness and such practically unanimous opinion came the strength that has maintained continuously the independence of the medical profession.

In the future this unity may well become not only the deciding factor in preserving our public-approved system of private medical practice, but also the deciding factor in preserving our American institutions and our Freedom of Enterprise.

OUTSTANDING PROGRAM LISTED BY CLINICAL SOCIETY

Another outstanding program has been planned by the Oklahoma City Clinical Society for its annual fall conference slated for October 27, 28, 29, and 30 at the Biltmore hotel, Oklahoma City.

Seventeen guest speakers, postgraduate symposia, general assembies, round-table luncheons, a clinic dinner, the annual smoker, the president's dinner, and the clinical pathological conference will feature the conference, which is now in its 17th year.

General assemblies as scheduled from 9 a.m. to 5 p.m. and round-table luncheons at noon each day will be held separately for medical and surgical groups with one combined luncheon to be conducted. Physicians are invited to bring their families to the clinic dinner Tuesday night at the Skirvin Tower hotel but the smoker is strictly a stag party. The president's dinner will be held Monday night with admission by ticket only, which may be secured at the registration desk.

The postgraduate symposia hours have been arranged so that all material on a related subject is scheduled at different times on the program and never conflicts. Affording a change from lectures and symposia, the clinical pathological conference is also to be one of the highlights of the four day meeting.

Guest speakers have been selected from the leading medical centers of the country and include: Edward Allen, M.D., gynecology, clinical associate professor of gynecology and obstetrics, University of Illinois School of Medicine (Rush), Chicago, Ill.; William Arthur Altemeier, M.D., surgery, assistant professor of suregry, College of Medicine, University of Cincinnati, Ohio; Carl E. Badgley, M.D., orthopedic surgery, professor of surgery and head of the department of orthopedic surgery, University of Michigan School of Medicine, Ann Arbor, Mich.

A. Carlton Ernstene, M.D., medicine, staff physician in charge of section on cardiovascular diseases, Cleveland clinic, Cleveland, Ohio; Wiley Davis Forbus, M.D., pathology, professor of pathology, Duke University School of Medicine, Durham, N. C.; Thomas E. Jones, M.D., surgery, chief of the surgical division, Cleveland clinic, Cleveland, Ohio; H. Dabney Kerr, M.D., radiology, head of the department and professor of radiology, College of Medicine, University of Iowa, Iowa City, Iowa; Linwood D. Keyser, M.D., urology, attending general and urological surgeon, Roanoke hospital, Roanoke, Va.;

Edward L. Bortz, M.D., president of the American Medical Association, Philadelphia, Pa.; Edward Lacy King, M.D., obstetrics, professor of obstetrics, Tulane University School of Medicine, New Orleans, La.; Frank D. Lathrop, M.D., otolaryngology, otolaryngologist, Lahey Clinic, Boston, Mass.;

George M. Lewis, M.D., dermatology, associate clinical professor of dermatology, Cornell University School of Medicine, New York City, New York; Samuel F. Marshall, M.D., pediatrics, professor of pediatrics, pediatrician in chief, University of Kansas School of Medicine, Kansas City, Kans.; C. Wilbur Rucker, M.D., ophthalmology, associate professor of ophthalmology, Mayo Foundation, Graduate School of the University of Minnesota, Rochester, Minn.;

Cyrus C. Sturgis, M.D., medicine, professor of internal medicine, University of Michigan School of Medicine, Ann Arbor, Mich.; and Elmer G. Wakefield, M.D., medicine, associate professor of medicine, Mayo Fundation, Graduate School of the University of Minnesota, Rochester, Minn.

Room reservations may be made direct with Oklahoma City hotels or by communicating with the executive secretary, 512 Medical Arts, Oklahoma City.

OBSTETRICS-GYNECOLOGY EXAM SET

The next written examination (part one) for all candidates for the American Board of Obstetrics and Gynecology, Inc. will be held Friday, February 6, 1948.

OFFICERS OF COUNTY SOCIETIES, 1947

COUNTY	PRESIDENT	SECRETARY	MEETING TIME
Alfalfa	L. R. Kirby, Cherokee	L. T. Lancaster, Cherokee	Last Tues. each Second Month
Atoka-Bryan-Coal-Johnston	J. S. Fulton, Atoka	A. T. Baker, Durant	
Beckham	O. C. Standifer, Elk City	J. E. Levick, Elk City	Second Tuesday
Blaine	Fred Perry, Okeene	Virginia Curtin, Watonga	Third Thursday
Caddo	George W. Conover, Jr., Anadarko	Edward T. Cook, Jr., Anadarko	Third Thursday
Canadian	G. L. Goodman, Yukon	Jack W. Myers, El Reno	Subject to Call
Carter	J. M. Gordon, Ardmore	C. D. Cunningham, Ardmore	Second Tuesday
Cherokee	P. H. Medearis, Tahlequah	R. K. McIntosh, Jr., Tahlequah	First Tuesday
Choctaw-McCurtain-Pushmataha	Reed Wolfe, Hugo	Fred D. Switzer, Hugo	
Cleveland	Orville Woodson, Norman	T. A. Ragan, Norman	Thursday nights
Comanche	Leslie T. Hamm, Lawton	Byron W. Aycock, Lawton	Third Tuesday
Cotton	G. W. Baker, Walters	Mollie Scism, Walters	Third Friday
Craig	P. L. Hayes, Vinita	J. M. McMillan, Vinita	
Creek	O. H. Cowart, Bristow	F. H. Sisler, Jr., Bristow	Second Tuesday
Custer	Willard H. Smith, Clinton	D. W. McCauley, Clinton	Third Thursday
Garfield	Francis M. Duffy, Enid	John R. Walker, Enid	Fourth Thursday
Garvin	Thomas F. Gross, Lindsay	John R. Callaway, Pauls Valley	Wed. before 3rd Thur.
Grady	R. R. Coates, Chickasha	Wesley W. Davis, Chickasha	Third Thursday
Grant	I. V. Hardy, Medford	F. P. Robinson, Pond Creek	
Greer	Dwight D. Pierson, Mangum	J. B. Hollis, Mangum	
Harmon	W. G. Husband, Hollis	R. H. Lynch, Hollis	First Wednesday
Haskell	Wm. S. Carson, Keota	N. K. Williams, McCurtain	
Hughes	Clyde Kernek, Holdenville	H. V. Schaff, Holdenville	First Friday
Jackson	E. W. Mabry, Altus	J. P. Irby, Altus	Last Monday
Jefferson	J. A. Dillard, Waurika	O. J. Hagg, Waurika	Second Monday
Kay-Noble	E. C. Mohler, Ponca City	Edwin Yeary, Ponca City	Second Thursday
Kingfisher	John R. Taylor, Kingfisher	H. Violet Sturgeon, Hennessey	
Kiowa	J. Wm. Finch, Hobart	R. F. Shriner, Jr., Hobart	
LeFlore	John H. Harvey, Heavener	Rush L. Wright, Poteau	
Lincoln	J. S. Rollins, Prague	Ned Burleson, Prague	First Wednesday
Logan	James Petty, Guthrie	J. E. Souter, Guthrie	Last Tuesday
Mayes	E. H. Werling, Pryor	Paul B. Cameron, Pryor	
McClain	I. N. Kolb, Blanchard	W. C. McCurdy, Jr., Purcell	
McIntosh	F. R. First, Sr., Checotah	W. A. Tolleson, Eufaula	Third Thursday
Muskogee-Sequoyah-Wagoner	W. P. Fite, Muskogee	William N. Weaver, Muskogee	First Tuesday
Northwestern	Myron England, Woodward	C. W. Tedrowe, Woodward	2nd Thurs. Even Mo.
Okfuskee	L. J. Spickard, Okemah	M. L. Whitney, Okemah	
Oklahoma	F. Redding Hood, Oklahoma City Mrs. Muriel Waller, Exec. Secty.	George E. Kimball, Oklahoma City	Fourth Tuesday
Okmulgee	John Cotteral, Henryetta	C. E. Smith, Henryetta	Fourth Tuesday
Osage	R. O. Smith, Hominy		
Ottawa	B. Wright Shelton, Miami	W. Jackson Sayles, Miami	Third Thursday
Payne-Pawnee	C. H. Haddox, Pawnee	C. W. Moore, Stillwater	Second Thursday
Pittsburg	Homer C. Wheeler, McAlester	Edward D. Greenberger, McAlester	Third Friday
Pontotoc-Murray	E. D. Padberg, Ada	Ollie McBride, Ada	First Wednesday
Pottawatomie	Charles F. Paramore, Shawnee	Clinton Gallaher, Shawnee	1st and 3rd Saturday
Rogers	W. A. Howard, Chelsea	P. S. Anderson, Claremore	
Seminole	Claude B. Knight, Wewoka	Mack I. Shanholtz, Wewoka	
Stephens	E. H. Lindley, Duncan	E. C. Lindley, Duncan	Third Wednesday
Texas	Daniel S. Lee, Guymon	E. L. Buford, Guymon	Third Wednesday
Tillman	G. A. Tallant, Frederick	O. G. Bacon, Frederick	
Tulsa	E. O. Johnson, Tulsa Mr. Jack Spears, Exec. Secty.	John E. McDonald, Tulsa	Second and Fourth Monday
Washington Nowata	Thomas Wells, Bartlesville	L. B. Word, Bartlesville	
Washita	A. H. Bungardt, Cordell	Aubrey E. Stowers, Sentinel	Second Wednesday
Woods	C. A. Traverse, Alva		Last Tuesday Odd Months

COUNCILORS AND VICE-COUNCILORS

(Figure indicate year terms expire.)

District No. 1: Alfalfa, Beaver, Cimarron, Dewey, Ellis, Harper, Texas, Woods, Woodward—O. E. Templin, M.D., Alva (C) 1950; O. C. Newman, M.D., Shattuck (V-C) 1950.

District No. 2: Beckham, Custer, Greer, Harmon, Jackson, Kiowa, Roger Mills, Tillman, Washita—L. G. Livingston, M.D., Cordell (C) 1948; O. C. Standifer, M.D., Elk City (V-C) 1950.

District No. 3: Garfield, Grant, Kay Noble, Pawnee, Payne—Bruce Hinson, M.D., Enid (C) 1950; R. W. Choice, M.D., Wakita (V-C) 1950.

District No. 4: Blaine, Canadian, Cleveland, Kingfisher, Logan, Oklahoma—Carroll Pounders, M.D., Oklahoma City (C) 1950; Joe Phelps, M.D., El Reno (V-C) 1950.

District No. 5: Cadda, Carter, Comanche, Cotton, Grady, Jefferson, Love, Stephens—J. L. Patterson, M.D., Duncan (C) 1948; J. Hobson Veazey, M.D., Ardmore (V-C) 1950.

District No. 6: Creek, Nowata, Osage, Rogers, Tulsa, Washington—Ralph McGill, M.D., Tulsa (C) 1949; Ralph Rucker, M.D., Bartlesville (V-C) 1950.

District No. 7: Garvin, Hughes, Lincoln, McClain, Murray, Okfuskee, Pontotoc, Pottawatomie, Seminole—Clinton Gallaher, M.D., Shawnee (C) 1950; Ned Burleson, M.D., Prague (V-C) 1950.

District No. 8: Adair, Cherokee, Craig, Deleware, Mayes, Muskogee, Okmulgee, Ottawa, Sequoyah, Wagoner—J. G. Edwards, M.D., Okmulgee (C) 1948; W. J. Sayles, M.D., (V-C) 1950.

District No. 9: Haskell, Latimer, LeFlore, McIntosh, Pittsburg—Earl Woodson, M.D., Poteau (C) 1948; E. H. Shuller, M.D., McAlester (V-C) 1950.

District No. 10: Atoka, Bryan, Choctaw, Coal, Johnston, Marshall, McCurtain, Pushmataha—W. K. Haynie, M.D., Durant (C) 1950; W. W. Cotton, M.D., Atoka (V-C) 1950.